



**THE DATASHEET OF  
BCM56821B0KFSBLG**



# 2013 PRODUCTS

**Applications & Multimedia Processors**

**Automotive Solutions**

**Base Station & Small Cells**

**Bluetooth Silicon & Software Solutions**

**Broadband Carrier Access (EPON, GPON, & xDSL)**

**Broadband Processors**

**Cable Modems**

**Cable, Satellite, & IPTV Set-Top Boxes**

**Carrier & Service Provider Networks**

**Data Center Networks**

**Enterprise Networks**

**GPS & GNSS**

**Knowledge-Based Processors**

**Microwave & Mobile Backhaul**

**Mobile Communications**

**Near Field Communication**

**Small-to-Medium Business Networks**

**Wireless Networks**



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## Home (Broadband Communications)

### Broadband Carrier Access

#### GPON & EPON Solutions

##### GPON Solutions

|                 |   |
|-----------------|---|
| BCM6800 Family  | Single-Chip GPON Gateway Processors         |
| BCM6802         | Ethernet/MoCA 2.0 Bridge                    |
| BCM6816         | Single-Chip GPON Home Gateway with MoCA®    |
| BCM6818         | GPON-Based Residential Gateway SoC Solution |
| BCM6828         | EPON-Based Residential Gateway SoC Solution |
| BCM685xx Series | Intelligent Networking GPON Technology      |

##### Optical Line Terminals (OLTs)

|                 |  |
|-----------------|--|
| BCM55524        | Multiport 1G EPON/2.5G Turbo-EPON® Optical Line Terminal SoC for Stand-Alone & Chassis Line-Card Systems |
| BCM5553x Family | Multiport 10G EPON Optical Line Terminal SoCs for Stand-Alone & Chassis Line-Card Systems                |
| TK3723          | Dual-Port IEEE 802.3ah 1G EPON/2.5G Turbo-EPON® OLT SoC  |

##### Optical Network Units (ONUs)

|          |  |
|----------|--|
| BCM55030 | Multirate IEEE 802.3av 10G/10G & 10G/1G EPON ONU (China CTC Compliant)                           |
| TK3713   | IEEE 802.3ah 1G EPON Optical Network Unit (ONU) SoC  |
| TK3714   | Multirate IEEE 802.3ah 1G EPON/2.5G Turbo-EPON® Optical Network Unit (ONU) SoC                   |
| TK3715   | Multirate IEEE 802.3ah 1G EPON/2.5G Turbo-EPON® Optical Network Unit (ONU) (China CTC Compliant) |

#### Powerline Communications Solutions

|          |  |
|----------|--|
| BCM60321 | Powerline Networking SoC                       |
| BCM60322 | Application Coprocessor for Powerline Networks |

#### xDSL CO Solutions

|                 |  |
|-----------------|--|
| BCM6515         | High-Performance VoIP Digital Signal Processor |
| BCM6519         | Multi-DSL Transceiver                          |
| BCM6529         | Low-Power Dual-Channel Analog Front-End Device |
| BCM65300        | VDSL2 G.vector Central Office SoC              |
| BCM65x00 Family | Central Office High Density Multi-DSL Chipset  |

#### xDSL CPE Solutions

##### Combo Solutions

|          |  |
|----------|--|
| BCM63168 | Single-Chip ADSL/VDSL Integrated Access Device SoC with 802.11n & DECT |
| BCM6362  | Single-Chip IAD with Integrated ADSL2+, 802.11n, & DECT                |

##### xDSL CPE Solutions

|          |  |
|----------|--|
| BCM6306  | VDSL2 30a/6-Band & Channel Bonding Analog Front-End Solution           |
| BCM63168 | Single-Chip ADSL/VDSL Integrated Access Device SoC with 802.11n & DECT |
| BCM6318  | Entry-Level ADSL2+ Router  |
| BCM63281 | Single-Chip ADSL2+ Router/Gateway Solution                             |
| BCM6338  | ADSL2+ Router Solution   |
| BCM6358  | Single-Chip ADSL2+ Integrated Access Device Solution                   |
| BCM6362  | Single-Chip IAD with Integrated ADSL2+, 802.11n, & DECT                |
| BCM6368  | Residential VDSL2/ADSL2+ Gateway Solution                              |

## Cable

### Cable Modem Solutions

#### Cable Modem ICs

|          |  |
|----------|--|
| BCM3349  | QAMLink® DOCSIS®/EuroDOCSIS™ 2.0 Single-Chip Cable Modem                 |
| BCM3371  | DOCSIS®/EuroDOCSIS™ 2.0 High-Performance Data Gateway                    |
| BCM3378  | DOCSIS®/EuroDOCSIS™ 2.0 Single-Chip Embedded Multimedia Terminal Adapter |
| BCM3379  | DOCSIS®/EuroDOCSIS™ 2.0 Embedded Multimedia Terminal Adapter & Gateway   |
| BCM3382  | DOCSIS®/Euro-DOCSIS™ 3.0 Cable Modem SoC                                 |
| BCM3383  | DOCSIS®/Euro-DOCSIS™ 3.0 Cable Gateway SoC with Full Band Capture        |
| BCM3384  | DOCSIS®/Euro-DOCSIS™ 3.0 SoC with Full Band Capture                      |
| BCM33843 | DOCSIS®/Euro-DOCSIS™ 3.0 Cable Gateway SoC                               |
| BCM6802  | Ethernet/MoCA 2.0 Bridge   |

#### Silicon Tuner ICs

|         |   |
|---------|---|
| BCM3413 | Advanced QAM Low-Noise Amplifier (LNA)      |
| BCM3421 | Advanced Direct Conversion Cable Tuner      |
| BCM3422 | 1 GHz Low-Power Digital Cable Silicon Tuner |

### Cable Set-Top Box Solutions

#### DOCSIS® STB Front End

|           |   |
|-----------|---|
| BCM3252   | Dual-Channel Front-End DOCSIS® 2.0+ STB IC with Channel Bonding           |
| BCM3255   | Single-Chip Front-End DOCSIS® 2.0+ IC for HD DVR Set-Tops & Media Centers |
| BCM3383M  | 40 nm 1 GHz Full Band Capture 8x4 DOCSIS® 3.0 Set-Top Front End           |
| BCM3383MV | 40 nm 1 GHz Full Band Capture 8x4 DOCSIS® 3.0 with VoIP Set-Top Front End |

#### Silicon Tuner/Receiver ICs

|         |   |
|---------|---|
| BCM3123 | 40 nm 1 GHz Full Band Capture CATV Tuner 3 QAM Set-Top Front End                    |
| BCM3124 | 40 nm 1 GHz Full Band Capture CATV Tuner 4 QAM Set-Top Front End                    |
| BCM3127 | 40 nm 1 GHz Full Band Capture CATV Tuner 4 QAM + SCTE 55 Receiver Set-Top Front End |
| BCM3128 | 40 nm 1 GHz Full Band Capture CATV Tuner 8 QAM + SCTE 55 Receiver Set-Top Front End |
| BCM3450 | MoCA® Power Amplifier/Low-Noise Amplifier (LNA)                                     |
| BCM3461 | DVB-T/T2/C Receiver with Integrated Tuner   |

#### Single-Chip Set-Top ICs

|         |   |
|---------|---|
| BCM3325 | 40 nm Dual HD Transcoding 3K DMIPS CPU Headless Gateway Set-Top SoC         |
| BCM3471 | 40 nm ISDB-T Receiver with Integrated Tuner                                 |
| BCM3472 | 40 nm Dual ISDB-T Receiver with Integrated Tuner                            |
| BCM7019 | HD + DOCSIS® Cable SoC  |
| BCM7025 | HD + DOCSIS® Cable SoC with Integrated MoCA® 1.1                            |
| BCM7119 | HD + DOCSIS® Cable SoC with SCTE55 OOB Transceiver                          |
| BCM7125 | HD + DOCSIS® Cable SoC with SCTE55 OOB Transceiver and Integrated MoCA® 1.1 |

## Cable (cont.)

### Cable Set-Top Box Solutions (cont.)

Single-Chip Set-Top Box ICs (cont.)

|              |   |
|--------------|---|
| BCM7229      | 40 nm HD IP/CATV STB, 1300 DMIPS App CPU, DDR3, USB, SATA, SDIO & Enet                                  |
| BCM7230      | 40 nm HD IP/CATV STB, 1600 DMIPS App CPU, DDR3, OpenGL® ES 2.0  |
| BCM7231      | 40 nm HD IP/CATV STB, 2K DMIPS App CPU, DDR3, OpenGL® ES 2.0, SVC Decoding                              |
| BCM7241      | 40 nm HD IP/CATV STB, 3K DMIPS App CPU, DDR3, OpenGL® ES 2.0, SVC Decoding                              |
| BCM7242      | 40 nm HD IP/CATV STB, 3K DMIPS App CPU, DDR3, OpenGL® ES 2.0, SVC Decoding, HDMI Rx                     |
| BCM7410      | Multiformat HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, & Cable DVR STBs              |
| BCM7418      | High Definition Set-Top Box Client SoC with MoCA® for Home Networking                                   |
| BCM7420      | Multiformat Dual HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, & Cable DVR STBs         |
| BCM7421      | Full-Resolution HD 3DTV Set-Top Box SoC Solution  |
| BCM7422      | 40 nm MoCA® 2.0 Dual HD, 3K DMIPS App CPU Hybrid Gateway STB SoC  |
| BCM7424      | 40 nm Dual HD, Dual HD Transcoding 3K DMIPS App CPU Hybrid Gateway STB SoC                              |
| BCM7425      | 40 nm MoCA® 2.0 Dual HD Transcoding, 3K DMIPS App CPU, OpenGL® ES 2.0 Hybrid GW STB SoC                 |
| BCM7428      | 40 nm MoCA® 2.0 IP HD, 3K DMIPS App CPU, OpenGL® ES 2.0, HDMI Rx, DDR3 STB Client                       |
| BCM7429      | 40 nm MoCA® 2.0 Multi-Room HD, 3K DMIPS App CPU, OpenGL® ES 2.0, HDMI Rx, SATA 3, DDR3, STB SoC         |
| BCM7445      | Ultra High Definition Television (UltraHD TV) Video Decoder Solution                                    |
| BCM7581/7582 | 40 nm Single-Chip DVB-C HD STB, 1100 DMIPS App CPU, 1 GHz Tuner, 1024 QAM Demodulator, DVB-Ci/CableCard |

### CMTS Products

|         |   |
|---------|---|
| BCM3034 | Universal 1024-QAM Modulator                                |
| BCM3040 | Universal DOCSIS® 2.0-Based Downstream Modulator            |
| BCM3140 | Dual Universal DOCSIS®/EuroDOCSIS™ 2.0 Burst Receiver       |
| BCM3142 | 12-Channel Universal DOCSIS®/EuroDOCSIS™ 3.0 Burst Receiver |
| BCM3214 | DOCSIS®/EuroDOCSIS™ 2.0-Based CMTS MAC                      |
| BCM3215 | Octal Downstream DOCSIS®/EuroDOCSIS™ 3.0-Based CMTS MAC     |
| BCM3216 | Upstream DOCSIS®/EuroDOCSIS™ 3.0-Based CMTS MAC             |

### Digital Transport Adapter & Entry-Level STB ICs

|         |   |
|---------|---|
| BCM7002 | Cable Set-Top Box Digital Transport Adapter (DTA) SoC                 |
| BCM7003 | SD Cable Interactive Receiver with USB DVR                            |
| BCM7004 | SD Cable Basic Receiver   |
| BCM7013 | Low-Cost SD Cable Interactive Receiver with 10/100 Ethernet & USB DVR |
| BCM7014 | Low-Cost SD Cable STB   |

## Cable (cont.)

### Digital Transport Adapter & Entry-Level STB ICs (cont.)

|              |   |
|--------------|---|
| BCM7023      | 40 nm Single-Chip DBC-C SD STB, 1100 DMIPS App CPU, 1 GHz Tuner, 1024 QAM Demodulator                   |
| BCM7530      | ISDB-T High Definition Digital Terrestrial Converter Box SoC  |
| BCM7540      | ISDB-T High Definition Digital Terrestrial Converter Box SoC  |
| BCM7542      | 40 nm Single-Chip ISDBT HD STB, 1100 DMIPS App CPU  |
| BCM7552      | 40 nm Single-Chip DVB-T HD STB, 1100 DMIPS App CPU  |
| BCM7574      | 40nm EZ-HD Digital Transport Adapter (DTA) Cable Set-Top Box SoC  |
| BCM7580      | HD Cable Converter Box Solution with DVB-C Tuner & AVS  |
| BCM7581/7582 | 40 nm Single-Chip DVB-C HD STB, 1100 DMIPS App CPU, 1 GHz Tuner, 1024 QAM Demodulator, DVB-Ci/CableCard |
| BCM7583      | 40 nm Single-Chip Full Band Capture CATV Tuner 3 QAM + DVB-C HD STB                                     |
| BCM7584      | 40 nm Single-Chip Full Band Capture CATV Tuner 3 QAM + DVB-C HD DVR STB                                 |
| BCM7592      | 40 nm Single-Chip DVB-C/ISDBT HD STB, 1100 DMIPS App CPU  |

### DOCSIS EoC Solutions

|         |                              |
|---------|------------------------------|
| BCM3143 | DOCSIS® EoC Burst Receiver   |
| BCM3218 | DOCSIS® EoC Combined MAC/PHY |
| BCM3219 | DOCSIS® EoC Management Chip  |

### High Definition Audio/Video/Graphics System Processors

|         |   |
|---------|---|
| BCM3510 | HDTV/CATV Receiver  |
| BCM3520 | ATSC/VSB/NTSC Digital Cable-Ready DTV Receiver  |
| BCM7410 | Multiformat HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, & Cable DVR STBs      |
| BCM7420 | Multiformat Dual HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, & Cable DVR STBs |

## Consumer Electronics

### High Definition Audio/Video/Graphics System Processors

|         |   |
|---------|---|
| BCM3510 | HDTV/CATV Receiver  |
| BCM3520 | ATSC/VSB/NTSC Digital Cable-Ready DTV Receiver  |
| BCM7410 | Multiformat HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, & Cable DVR STBs      |
| BCM7420 | Multiformat Dual HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, & Cable DVR STBs |

## IPTV

### IPTV Solutions

|         |  |
|---------|--|
| BCM3322 | Hybrid IP Gateway SoC Solution   |
| BCM3325 | 40 nm Dual HD Transcoding 3K DMIPS CPU Headless Gateway Set-Top SoC                                  |
| BCM7219 | OTT Media Player SoC Solution  |
| BCM7220 | OTT Media Player SoC Solution  |
| BCM7221 | OTT Media Player SoC Solution  |
| BCM7229 | 40 nm HD IP/CATV STB, 1300 DMIPS App CPU, DDR3, USB, SATA, SDIO & Enet                               |
| BCM7230 | 40 nm HD IP/CATV STB, 1600 DMIPS App CPU, DDR3, 700M p/s OGL 2.0 3D Graphics, USB, SATA, SDIO & Enet |
| BCM7231 | 40 nm HD IP/CATV STB, 2000 DMIPS App CPU, DDR3, 400M p/s OGL 2.0 3D Graphics, USB, SATA, SDIO & Enet |

## IPTV (cont.)

### IPTV Solutions (cont.)

|         |  |
|---------|--|
| BCM7241 | 40 nm HD IP/CATV STB, 3K DMIPS App CPU, DDR3, 700M p/s OGL 2.0 3D Graphics, USB, SATA, SDIO & Enet |
| BCM7428 | 40 nm MoCA® 2.0 IP HD, 3K DMIPS App CPU, OpenGL® ES 2.0, HDMI Rx, DDR3 STB Client                  |
| BCM7435 | 40 nm Dual-Core Hybrid Gateway SoC with Web Domain Security  |

## Satellite

### HDTV/SDTV Video, Graphics, & Receiver Products

|         |  |
|---------|--|
| BCM4505 | DVB-S2 Advanced Modulation Satellite Receiver      |
| BCM4506 | Dual DVB-S2 Advanced Modulation Satellite Receiver |

### Satellite Out Door Unit

|         |  |
|---------|--|
| BCM4550 | Full Band Capture Satellite Channel Stacker Solution |
|---------|--|

### Satellite Set-Top Box Solutions

|         |   |
|---------|---|
| BCM3471 | 40 nm ISDB-T Receiver with Integrated Tuner   |
| BCM3472 | 40 nm Dual ISDB-T Receiver with Integrated Tuner                                    |
| BCM4528 | Full Band Capture Satellite Set-Top Box SoC   |
| BCM7344 | Single-Tuner HD AVC Satellite Receiver with MoCA®                                   |
| BCM7346 | Dual-Tuner HD AVC Satellite Receiver with MoCA                                      |
| BCM7354 | Single-Tuner HD AVC Satellite Receiver  |
| BCM7356 | Dual-Tuner HD AVC Satellite Receiver  |
| BCM7358 | High Definition Satellite System-on-Chip  |
| BCM7408 | Thin Client SoC with Integrated MoCA®   |
| BCM7424 | Full-Resolution HD 3DTV Set-Top Box SoC Solution                                    |
| BCM7425 | 40 nm MoCA® 2.0 Dual HD Transcoding, 3K DMIPS App CPU, OpenGL® ES 2.0 Hybrid GW STB |
| BCM7466 | Multiformat SD Digital Video/Audio SoC for Satellite, IP, & Cable STBs              |

## Hand (Mobile and Wireless)

## Applications & Multimedia Processors

### High-Performance Applications Processors

#### Tablet/Video Phone Solutions

|          |   |
|----------|---|
| BCM11130 | Merlyn® 1080p Dual-Core Enterprise Applications & Multimedia Processor                  |
| BCM11140 | Merlyn® 1080p Dual-Core High-Performance Enterprise Applications & Multimedia Processor |

### IP Communications Processors

#### Entry Voice Solutions

|          |                                       |
|----------|---------------------------------------|
| BCM11190 | Low-Cost Fast Ethernet VoIP Processor |
|----------|---------------------------------------|

#### Persona® Value Voice Solutions

|          |  |
|----------|--|
| BCM11188 | Persona® Value Gigabit IP Communications Processor       |
| BCM11189 | Persona® Value Fast Ethernet IP Communications Processor |
| BCM11198 | Persona® Value Gigabit IP Communications Processor       |
| BCM11199 | Persona® Value Fast Ethernet IP Communications Processor |

#### Persona® Voice Solutions

|          |  |
|----------|--|
| BCM11107 | Persona® Media Gigabit IP Communications Processor         |
| BCM11109 | Persona® Prime Gigabit IP Communications Processor         |
| BCM11170 | Persona® Classic Fast Ethernet IP Communications Processor |
| BCM11195 | Persona® Fast Ethernet IP Communications Processor         |

## Applications & Multimedia Processors (cont.)

### Stand-Alone Media Terminal Adapters

|         |                 |
|---------|-----------------|
| BCM1111 | VoIP CPE Engine |
|---------|-----------------|

### Wi-Fi Phone Solutions

|         |                       |
|---------|-----------------------|
| BCM1161 | Mobile VoIP Processor |
|---------|-----------------------|

## Bluetooth

### Bluetooth RF Silicon and Software Solutions

#### Combo Solutions

|              |  |
|--------------|--|
| BCM20710     | Single-Chip Bluetooth Transceiver & Baseband Processor   |
| BCM2076      | Multifunction Monolithic IC with GPS & GLONASS AGPS, Bluetooth 4.0, & FM Receiver/Transmitter                    |
| BCM43142     | Wi-Fi Direct™ & Bluetooth 4.0 Combo Chip for PCs & Notebooks   |
| BCM43143     | Single-Chip IEEE 802.11 b/g/n MAC/PHY/Radio with USB/SDIO Host Interface   |
| BCM43340     | Single-Chip, Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0 & FM Receiver      |
| BCM43341     | Single-Chip, Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0, NFC & FM Receiver |
| BCM943224HMB | Dual-Band 802.11n & Bluetooth 3.0 Half MiniCard Reference Design   |
| BCM943225HMB | Single-Band 802.11n & Bluetooth 3.0 Half MiniCard Reference Design   |

#### Blutonium® Bluetooth Silicon

|                 |  |
|-----------------|--|
| BCM2047         | Single-Chip Bluetooth Wireless Audio Solution with DSP   |
| BCM20702        | Single-Chip Bluetooth 4.0 HCI Solution with Bluetooth Low Energy (BLE) Support                                   |
| BCM20710        | Single-Chip Bluetooth Transceiver & Baseband Processor   |
| BCM20730        | Single-Chip Bluetooth 3.0-Compliant Solution + Integrated 2.4 GHz Transceiver for Wireless Input Devices         |
| BCM20732        | Single-Chip Bluetooth Low Energy-Only System-On-Chip   |
| BCM20733        | Single-Chip Bluetooth 3.0-Compliant + EDR Solution + Integrated 2.4 GHz Transceiver for Wireless Input Devices   |
| BCM2076         | Multifunction Monolithic IC with GPS and GLONASS AGPS, Bluetooth 4.0, & FM Receiver/Transmitter                  |
| BCM2077x Family | BCM2077x Stereo Bluetooth Audio Chip Family  |
| BCM43142        | Wi-Fi Direct™ & Bluetooth 4.0 Combo Chip for PCs & Notebooks   |
| BCM43340        | Single-Chip, Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0 & FM Receiver      |
| BCM43341        | Single-Chip, Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0, NFC & FM Receiver |

## Bluetooth (cont.)

### Bluetooth RF Silicon & Software Solutions (cont.)

Widcomm® Bluetooth Software

|               |   |
|---------------|---|
| BCM1000-Bplus | Bluetooth Communications Software for Android™ (Jellybean MR1 & Later)    |
| BCM1000-BTLA  | Bluetooth Communications Software for Android™ Mobile Technology Platform |
| BCM1000-BTW   | Bluetooth Communications Software for Windows®                            |
| BCM1200-BTE   | Bluetooth Communication Software for Embedded Systems                     |
| BCM1200-BTEM  | Bluetooth Communication Software for Mobile Phones                        |

## Cellular

### Cellular RF

|          |   |
|----------|---|
| BCM21331 | 65 nm EDGE SoC Baseband + RF + Multimedia |
|----------|---|

### Entry Segment

Entry Single-Chip Solutions

|          |   |
|----------|---|
| BCM21334 | 65 nm EDGE SoC Baseband + RF + Multimedia |
|----------|---|

Entry High-Performance EDGE Platform

|                     |  |
|---------------------|--|
| BCM21334 + BCM5903x | 312 MHz ARM9™, Integrated ISP, 65 nm EDGE SoC Baseband Processor, RF, & Power Management |
|---------------------|--|

### Mainstream Segment

Mainstream ICs

|          |  |
|----------|--|
| BCM2091  | 65 nm HSPA Multimode/Multiband 2G/3G RF Transceiver            |
| BCM2153  | 7.2 Mbps HEDGE 65 nm Multimedia Baseband Processor             |
| BCM21553 | 60 nm 7.2 Mbps/5.8 Mbps HSPA Multimedia Baseband Processor     |
| BCM2157  | 65 nm 7.2 Mbps HSDPA Baseband Processor                        |
| BCM2763  | High Definition 1080p Mobile Multimedia Processor              |
| BCM2835  | High Definition 1080p Mobile Multimedia Applications Processor |
| BCM59035 | Mobile Power Management Unit                                   |

Mainstream Low-Cost Android™ Platform

|                    |  |
|--------------------|--|
| BCM2157 + BCM59035 | 500 MHz ARM11™, 65 nm 7.2 Mbps HSDPA Baseband Processor & Power Management |
|--------------------|--|

Mainstream Low-Cost HSPA 3D Android™ Platform

|                               |  |
|-------------------------------|--|
| BCM2091 + BCM21553 + BCM59035 | 832 MHz ARM11™, OpenGL® 2.0 60 nm 7.2 Mbps/5.8 Mbps HSPA Multimedia Baseband Processor, RF, & Power Management |
|-------------------------------|--|

|          |   |
|----------|---|
| BCM21654 | Advanced Low-Cost HSPA/EDGE Multimedia Baseband Processor |
|----------|---|

|           |   |
|-----------|---|
| BCM21654G | Advanced Low-Cost HSPA/EDGE Multimedia Baseband Processor |
|-----------|---|

Smartphone HSPA+ Platform

|          |   |
|----------|---|
| BCM2093  | 40 nm HSPA+ Multimode/Multiband 2G/3G/4G RF Transceiver |
| BCM28145 | 720p 4G HSPA+ Smartphone Processor                      |
| BCM28150 | 1080p 4G HSPA+ Smartphone Processor                     |
| BCM28155 | 1080p 4G HSPA+ Smartphone Processor                     |
| BCM59056 | Advanced Mobile Power Management Unit                   |

## Cellular (cont.)

### Mobile TV Receivers

|         |   |
|---------|---|
| BCM2930 | DVB-T Single-Chip Tuner + Demodulator for Mobile Applications         |
| BCM2940 | DVB-H & DVB-T Single-Chip Tuner + Demodulator for Mobile Applications |

## GPS

### GPS Silicon Solutions

Combo Solutions

|         |   |
|---------|---|
| BCM2076 | Multifunction Monolithic IC with AGPS (GPS/SBAS/QZSS/GLONASS), Bluetooth 4.0, & Integrated FM (TX & RX) |
|---------|---|

GPS Silicon ICs

|          |   |
|----------|---|
| BCM2076  | Multifunction Monolithic IC with AGPS (GPS/SBAS/QZSS/GLONASS), Bluetooth 4.0, & Integrated FM (TX & RX) |
| BCM4750  | Single-Chip AGPS Solution   |
| BCM4751  | Integrated Monolithic GPS Receiver  |
| BCM47511 | Integrated Monolithic GNSS Receiver   |
| BCM4752  | Integrated Multi-Constellation GNSS Receiver  |
| BCM4760  | ARM11™ Applications Processor with Graphics Processing Unit and Integrated GNSS Receiver SoC            |
| BCM4761  | ARM11™ Applications Processor with Integrated GNSS Receiver SoC   |

### Location-Based Services

|           |  |
|-----------|--|
| AGPS-WWRN | Assisted-GPS Worldwide Reference Network                         |
| LTO-AGPS  | Long Term Orbits (LTO) with Assisted-GPS (AGPS)                  |
| SUPL-SLP  | Hosted Secure User Plane Location (SUPL) Location Platform (SLP) |

## Near Field Communication (NFC)

### NFC Solutions

|                 |  |
|-----------------|--|
| BCM20203        | Near Field Communication (NFC)/13.56 MHz Radio Frequency Identification Read/Write Solution                      |
| BCM2079x Family | Near Field Communications (NFC) Controller Family  |
| BCM43341        | Single-Chip, Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0, NFC & FM Receiver |

## Wireless LAN

### 802.11 Wireless LAN Solutions

Combo Solutions

|          |  |
|----------|--|
| BCM43142 | Wi-Fi Direct™ & Bluetooth 4.0 Combo Chip for PCs & Notebooks   |
| BCM43241 | 2x2 MIMO Dual-Band Combo Device Supporting 802.11n, Bluetooth 4.0+HS & FM Receiver for Tablet Computer     |
| BCM4330  | 802.11a/b/g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0+HS and FM Transceiver                       |
| BCM4334  | Single-Chip Dual-Band Combo Device Supporting 802.11n, Bluetooth 4.0+HS & FM Receiver                      |
| BCM43340 | Single-Chip Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0 & FM Receiver |

## Wireless LAN (cont.)

### 802.11 Wireless LAN Solutions (cont.)

#### Combo Solutions (cont.)

|                 |   |
|-----------------|---|
| BCM43341        | Single-Chip Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0, NFC & FM Receiver |
| BCM4335         | Single-Chip 5G Wi-Fi 802.11ac MAC/Baseband/Radio with Bluetooth 4.0+HS & FM Receiver                            |
| BCM94313HMG8EPA | 1x1 802.11n & Bluetooth 3.0 High-Speed Half MiniCard Reference Design   |
| BCM943224HMB    | Dual-Band 802.11n & Bluetooth 3.0 Half MiniCard Reference Design  |
| BCM943225HMB    | Single-Band 802.11n & Bluetooth 3.0 Half MiniCard Reference Design  |

#### 802.11 WLAN ICs

|                   |   |
|-------------------|---|
| BCM2055           | Intensi-fi® 802.11n Radio (2.4/5 GHz)   |
| BCM4312           | 802.11a/b/g Transceiver for SDIO & PCI Express®   |
| BCM4313           | InConcert® Wi-Fi and Bluetooth Coexistence Interface for Single/Dual Antenna Designs                            |
| BCM43142          | Wi-Fi Direct™ & Bluetooth 4.0 Combo Chip for PCs & Notebooks  |
| BCM43241          | 2x2 MIMO Dual-Band Combo Device Supporting 802.11n, Bluetooth 4.0 + HS & FM Receiver for Tablet Computers       |
| BCM4318E          | 802.11b/g Transceiver with BroadRange® Technology   |
| BCM4322           | Intensi-fi® Single-Chip 802.11n Transceiver   |
| BCM43224          | Dual-Band 802.11n 2x2 PCI Express® Half MiniCard  |
| BCM4323           | Intensi-fi® XLR Single-Chip 802.11n USB Solution  |
| BCM4323x Family   | Intensi-fi® XLR Media Family  |
| BCM43234          | Dual-Band 802.11n 1x1 Single-Chip USB Solution  |
| BCM43235          | Single-Band 802.11n 2x2 Single-Chip USB Solution  |
| BCM43236          | Dual-Band 802.11n 2x2 Single-Chip USB Solution  |
| BCM4330           | 802.11a/b/g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0+HS & FM Transceiver                              |
| BCM4331           | Single-Chip 802.11n Dual-Band 3x3 Wireless Solution   |
| BCM4334           | Single-Chip Dual-Band Combo Device Supporting 802.11n, Bluetooth 4.0+HS & FM Receiver                           |
| BCM43340          | Single-Chip Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0 & FM Receiver      |
| BCM43341          | Single-Chip Dual-Band (2.4/5 GHz) 802.11g/n MAC/Baseband/Radio with Integrated Bluetooth 4.0, NFC & FM Receiver |
| BCM4335           | Single-Chip 5G Wi-Fi 802.11ac MAC/Baseband/Radio with Bluetooth 4.0+HS & FM Receiver                            |
| BCM4342           | Intensi-fi® Single-Chip 802.11n Enterprise Solution   |
| BCM4703           | Intensi-fi® 802.11n Low-Cost 10/100 Processor   |
| BCM4704           | Intensi-fi® 802.11n Full-Featured 10/100 Processor  |
| BCM4705           | Intensi-fi® 802.11n GbE Processor   |
| BCM4706           | Intensi-fi® 802.11n GbE Processor   |
| BCM4707/4708/4709 | Communication Processor with Network Acceleration Home  |
| BCM4716           | Intensi-fi® XLR 802.11n 2.4 GHz Router System-on-Chip   |

## Wireless LAN (cont.)

### 802.11 Wireless LAN Solutions (cont.)

#### 802.11 WLAN ICs (cont.)

|                 |  |
|-----------------|--|
| BCM4717         | Intensi-fi® XLR 802.11n (2.4/5 GHz) Router System-on-Chip                        |
| BCM4717V        | Intensi-fi® XLR 802.11n (2.4/5 GHz) Wireless Set-Top Box System-on-Chip          |
| BCM4718         | Intensi-fi® XLR 802.11n Simultaneous Dual-Band (2.4/5 GHz) Router System-on-Chip |
| BCM47186        | Intensi-fi® XLR 2x2 802.11n (2.4/5 GHz) Router Solution                          |
| BCM5356x Family | 802.11b/g & Single-Stream 802.11n 2.4 GHz Router                                 |
| BCM5357         | Intensi-fi® XLR 802.11n Router Solution  |
| BCM5358x Family | 802.11n VoIP Router Solutions with 3G/4G Support                                 |
| BCM94313HMG8EPA | 1x1 802.11n & Bluetooth 3.0 High-Speed Half MiniCard Reference Design            |
| BCM94321CB2     | Single-Band 802.11n CardBus Reference Design (2.4 GHz)                           |
| BCM94321MC      | Dual-Band 802.11n PCI Express® MiniCard Reference Design                         |
| BCM94321MP      | Dual-Band 802.11n Mini PCI Reference Design                                      |
| BCM94322MP2D    | Single-Band 802.11n Mini PCI Reference Design (2.4 GHz)                          |
| BCM943224HMB    | Dual-Band 802.11n & Bluetooth 3.0 Half MiniCard Reference Design                 |
| BCM943225HMB    | Single-Band 802.11n & Bluetooth 3.0 Half MiniCard Reference Design               |
| BCM94322HMC     | Dual-Band 802.11n PCI Express® Half MiniCard Reference Design                    |
| BCM94322MC      | Dual-Band 802.11n PCI Express® Half MiniCard Reference Design                    |
| BCM94322MP      | Dual-Band 802.11n Mini PCI Reference Design                                      |
| BCM94322MP2D    | Single-Band 802.11n Mini PCI Reference Design (2.4 GHz)                          |
| BCM94323U       | Single-Chip 802.11n USB Reference Design   |
| BCM94703NR      | 802.11n Low-Cost AP/Router Reference Design                                      |
| BCM94704NR      | 802.11n AP/Router Reference Design   |
| BCM94705NR      | 802.11n Gigabit AP/Router Reference Design                                       |
| BCM94717        | 802.11n (2.4/5 GHz) Router Reference Design                                      |

#### Wi-Fi Phone Solutions

|         |                       |
|---------|-----------------------|
| BCM1161 | Mobile VoIP Processor |
|---------|-----------------------|

## Infrastructure (Network Infrastructure)

### Base Station & Small Cells

#### Digital Front-End Processors

|          |                             |
|----------|-----------------------------|
| BCM51030 | Digital Front-End Processor |
| OP6180   | Digital Front-End Processor |

#### Small Cell SoCs

|          |   |
|----------|---|
| BCM61670 | 3G Enterprise Small Cell Digital Baseband SoC |
|----------|---|

### Ethernet Controllers

#### Enterprise Client

##### Client Manageability

|          |  |
|----------|--|
| BCM5761  | 10/100/1000BASE-T Ethernet Controller with Integrated Security & TruManage™ Technology                 |
| BCM5761E | 10/100/1000BASE-T Ethernet Controller with Integrated Security, TruManage™ Technology & Docking Switch |

##### Gigabit Ethernet Controllers

|          |  |
|----------|--|
| BCM5705M | 10/100/1000BASE-T Ethernet Controller with Integrated Transceiver  |
| BCM5752  | NetXtreme® Gigabit Ethernet Controller with Integrated TPM1.2 for Desktops                               |
| BCM5752M | NetXtreme® Gigabit Ethernet Controller with Integrated TPM1.2 for Mobile PCs                             |
| BCM5755  | 10/100/1000BASE-T Ethernet Controller with Integrated Transceiver  |
| BCM5755M | 10/100/1000BASE-T Ethernet Controller with Integrated Transceiver  |
| BCM5756M | 10/100/1000BASE-T Ethernet Controller with Integrated Transceiver  |
| BCM57765 | NetXtreme® Gigabit Ethernet Controller with Integrated SDXC Card Reader, ASF & EEE Compliant Transceiver |
| BCM57781 | NetXtreme® Gigabit Ethernet Controller with Integrated EEE Compliant Transceiver                         |
| BCM57785 | NetXtreme® Gigabit Ethernet Controller with Integrated Card Reader & EEE Compliant Transceiver           |

#### Enterprise Server

##### 10-Gigabit Ethernet Controllers

|                 |  |
|-----------------|--|
| BCM57710        | Dual-Port 10G/2500/1000BASE-X TOE, RDMA, iSCSI PCI Express® Ethernet Controller                                  |
| BCM57711        | Dual-Port 10G/2500/1000BASE-X TOE, RDMA, iSCSI PCI Express® Ethernet Controller                                  |
| BCM57712        | Dual-Port 10GBASE-CX4/1000BASE-KX4 iSCSI, FCoE, TOE, RDMA PCI-SIG SR-IOV PCI Express® Gen-2 Controller with DCBx |
| BCM578x0 Family | Multi-Port Single-Chip 10G Ethernet Converged Controllers  |

##### Gigabit Ethernet Controllers

|          |  |
|----------|--|
| BCM5704C | Dual-Port 10/100/1000BASE-T PCI-X® Ethernet Controller with Integrated Transceiver |
| BCM5704S | Dual-Port 1000BASE-X Ethernet Controller   |
| BCM5706  | 10/100/1000BASE-T TOE, RDMA, iSCSI/iSER Ethernet Controller                        |
| BCM5708C | 10/100/1000BASE-T TOE PCI Express® Ethernet Controller                             |
| BCM5708S | 1000/2500BASE-X TOE, RDMA, iSCSI PCI Express® Ethernet Controller                  |

### Ethernet Controllers (cont.)

#### Enterprise Server (cont.)

##### Gigabit Ethernet Controllers (cont.)

|          |   |
|----------|---|
| BCM5709C | Dual-Port 10/100/1000BASE-T TOE PCI Express® Ethernet Controller              |
| BCM5709S | Dual-Port 10/100/1000BASE-T TOE PCI Express® Ethernet Controller              |
| BCM5714C | PCI Express®-to-PCI-X® I/O Bridge with Integrated Dual Gigabit Ethernet Ports |
| BCM5714S | PCI Express®-to-PCI-X® I/O Bridge with Integrated Dual Gigabit Ethernet Ports |
| BCM5715C | Dual-Port Gigabit Ethernet Controller with a PCI Express® Host Interface      |
| BCM5715S | Dual-Port Gigabit Ethernet Controller with a PCI Express® Host Interface      |
| BCM5718  | x2 PCI Express® Dual-Port Gigabit Ethernet Controller                         |
| BCM5719  | X4 PCI Express® Quad-Port Gigabit Ethernet Controller                         |
| BCM5722  | Integrated Gigabit Ethernet Controller with Integrated Transceiver            |
| BCM5723  | NetXtreme® Gigabit Ethernet Controller for Servers                            |

#### Home

##### Fast Ethernet Controllers

|          |  |
|----------|--|
| BCM5906M | 10/100BASE-T Ethernet Controller with Integrated Transceiver |
|----------|--|

##### Gigabit Ethernet Controllers

|          |   |
|----------|---|
| BCM5788  | NetLink® Gigabit Ethernet Controller with PHY                         |
| BCM5788M | NetLink® Gigabit Ethernet Controller with PHY for Mobile Applications |
| BCM5789  | NetLink® Gigabit Ethernet Controller with PCI Express®                |

#### Small Business

##### Fast Ethernet Controllers

|          |  |
|----------|--|
| BCM5906M | 10/100BASE-T Ethernet Controller with Integrated Transceiver |
|----------|--|

##### Gigabit Ethernet Controllers

|          |  |
|----------|--|
| BCM5754  | 10/100/1000BASE-T Ethernet Controller with Integrated Transceiver  |
| BCM5754M | 10/100/1000BASE-T Ethernet Controller with Integrated Transceiver  |
| BCM5764M | NetXtreme® Gigabit Ethernet Controller with ASF 2.0  |
| BCM57761 | NetXtreme® Gigabit Ethernet Controller with Integrated ASF 2.0 & EEE Compliant Transceiver               |
| BCM57765 | NetXtreme® Gigabit Ethernet Controller with Integrated SDXC Card Reader, ASF & EEE Compliant Transceiver |

### Knowledge-Based Processors

#### Layer 7 Processors

|         |   |
|---------|---|
| NLS025  | 250 Mbps NETL7™ Knowledge-Based Processor |
| NLS045  | 500 Mbps NETL7™ Knowledge-Based Processor |
| NLS055  | 500 Mbps NETL7™ Knowledge-Based Processor |
| NLS1005 | 10 Gbps NETL7™ Knowledge-Based Processor  |
| NLS1008 | 10 Gbps NETL7™ Knowledge-Based Processor  |
| NLS105  | 1 Gbps NETL7™ Knowledge-Based Processor   |
| NLS2008 | 20 Gbps NETL7™ Knowledge-Based Processor  |
| NLS205  | 2.5 Gbps NETL7™ Knowledge-Based Processor |

## Knowledge-Based Processors (cont.)

### Layers 2-4

|                  |  |
|------------------|--|
| Ayama 10128A     | Ayama™ Processor   |
| Ayama 10256A     | Ayama™ Processor   |
| Ayama 10512A     | Ayama™ Processor   |
| Ayama 20256A     | Ayama™ LA-1 Processor  |
| Ayama 20512A     | Ayama™ LA-1 Processor  |
| NL3100 Family    | NETLite™ NL3120 & NL3140 Processors - Proprietary Interface                      |
| NL3180GLQ        | NETLite™ Processor - NPU Interface   |
| NL3200 Family    | NL3240, NL3260 & NL3280 NETLite™ Processors - Proprietary Interface              |
| NL3300 Family    | NL3360, NL3380 & NL33100 NETLite™ Processors - Proprietary Interface             |
| NL5000 Family    | NL5064, NL5128, NL5256 & NL5512 Proprietary Interface Knowledge-Based Processors |
| NL5256GLQ        | 256K NPU Interface Knowledge-Based Processor                                     |
| NL5512GLQ        | 512K NPU Interface Knowledge-Based Processor                                     |
| NL56615 NetLite  | NetLite™ Processor   |
| NL6000 Family    | NL6512, NL6256 & NL6128 Proprietary Interface Knowledge-Based Processors         |
| NL7000 Family    | NL71024 & NL7512 Proprietary Interface Knowledge-Based Processors                |
| NL91024          | Proprietary Interface 1292 FCBGA Knowledge-Based Processor                       |
| NL9512           | Proprietary Interface 672 FCBGA Knowledge-Based Processor                        |
| NLA9000XT Family | NLA91024XT & NLA9512XT Proprietary Interface Knowledge-Based Processors          |
| NLA91024         | Proprietary Interface 1292 FCBGA Knowledge-Based Processor                       |
| NLA9512          | Proprietary Interface 672 FCBGA Knowledge-Based Processor                        |
| Sahasra 50650    | Sahasra™ Processor   |
| Sahasra 51500    | Sahasra™ Processor   |

## Microwave and Mobile Backhaul

### Baseband

|          |                                  |
|----------|----------------------------------|
| BCM85620 | Baseband & Networking SoC Family |
| PVG310   | Modem-on-a-Chip Family           |
| PVG610   | Baseband SoC Family              |

### Radio Frequency (RF)

|          |                           |
|----------|---------------------------|
| BCM85810 | RF SoC Family             |
| PVG710   | Integrated IF Transceiver |

## Physical Layer

### 10-Gigabit Ethernet PHYs

#### Backplane

|          |   |
|----------|---|
| BCM8071  | XAU1™-to-Serial 10GBASE-KR Backplane Transceiver              |
| BCM8073  | XAU1™-to-Dual-Channel Serial 10GBASE-KR Backplane Transceiver |
| BCM84064 | Quad 10GBASE-KR-to-XFI or 40GBASE-KR4-to-XLAUI Transceiver    |

## Physical Layer (cont.)

### 10-Gigabit Ethernet PHYs (cont.)

#### Optical

|          |  |
|----------|--|
| BCM8155  | Multirate Low-Power 8.5G-11.4G RZ/NRZ/Duobinary Transceiver with 10G Clock   |
| BCM8157  | Multirate Low-Power 8.5G-11.4G XFI to SFI-4.1 Transceiver                    |
| BCM84328 | Dual 40GbE/Octal 10GbE QSFP+ XLPP1-to-XLAUI PHY                              |
| BCM84727 | Dual-Channel 10GbE SFI-to-XAU1™ LAN PHY with 1588                            |
| BCM84728 | Dual-Channel 10GbE SFI-to-XAU1™ LAN/WAN PHY with 1588                        |
| BCM84729 | Dual-Channel 10GbE SFI-to-XAU1™ LAN PHY with 1588 & MACsec                   |
| BCM84741 | 40GbE XLPP1-to-XLAUI/Quad 10G with IEEE MACsec/1588                          |
| BCM84747 | Quad-Channel 10GbE SFI-to-XAU1™ LAN PHY with 1588                            |
| BCM84748 | Quad-Channel 10GbE SFI-to-XAU1™ LAN/WAN PHY with 1588                        |
| BCM84749 | Quad-Channel 10GbE SFI-to-XAU1™ LAN PHY with 1588 & MACsec                   |
| BCM84752 | Dual-Channel 10GbE SFI-to-XFI PHY with EDC                                   |
| BCM84753 | Quad-Channel 10GbE SFI-to-XFI PHY with EDC                                   |
| BCM84754 | Quad-Channel 10GbE SFI-to-XFI PHY with EDC                                   |
| BCM84756 | 10GbE Quad SFI-XFI PHY with IEEE MACsec/1588                                 |
| BCM84757 | 10GbE Quad SFI-XFI PHY with FCoE or IEEE 1588                                |
| BCM84758 | 10GbE Quad SFI-XFI PHY with IEEE 1588  |
| BCM84764 | Quad-Channel 10GbE SFI-to-RXAUI LAN PHY with 1588                            |
| BCM84784 | Dual 40GbE/Octal 10GbE QSFP+ XLPP1-to-XLAUI PHY                              |
| BCM8704  | Serial 10GbE/Fibre Channel Transceiver with XAU1™ Interface                  |
| BCM8705  | Serial 10GbE/FC/SONET LAN/WAN PHY with XAU1™ Interface                       |
| BCM8706  | XAU1™-to-Serial 10GBASE-LRM Transceiver                                      |
| BCM8707  | Single-Channel 10GbE SFI-to-XAU1™ Transceiver with EDC                       |
| BCM8724  | Dual 10-Gigabit Ethernet XFI-to-XAU1™ Transceiver                            |
| BCM8725  | Dual 10-Gigabit Ethernet XFI-to-XAU1™ LAN/WAN Transceiver                    |
| BCM8726  | Dual-Channel 10GbE SFI-to-XAU1™ Transceiver with EDC                         |
| BCM8727  | Dual-Channel 10GbE SFI-to-XAU1™ Transceiver with EDC                         |
| BCM8728  | Dual-Channel 10GbE SFI-to-XAU1™ Transceiver with EDC/Sync-E                  |
| BCM8752  | Dual-Channel 10-Gigabit Ethernet SFI-to-XFI PHY with EDC                     |
| BCM8753  | Quad-Channel 10-Gigabit Ethernet SFI-to-XFI PHY with EDC                     |
| BCM8754  | Quad-Channel 10-Gigabit Ethernet SFI-to-XFI PHY with EDC                     |
| BCM8011  | 4-Channel 3.125GbE CMOS Transceiver  |
| BCM8020  | 8-Channel Multirate 1.0 Gbps-3.2 Gbps Transceiver                            |
| BCM8021  | 4-Channel Multirate 1.0 Gbps-3.2 Gbps Transceiver with High-Speed Redundancy |
| BCM8022  | XAU1™-to-10GBASE-CX4 Retimer   |
| BCM8040  | 8-Channel Multirate 1.0 Gbps-3.2 Gbps Retimer Switch                         |
| BCM8071  | XAU1™-to-Serial 10GBASE-KR Backplane Transceiver                             |
| BCM8073  | XAU1™-to-Dual-Channel Serial 10GBASE-KR Backplane Transceiver                |

## Physical Layer (cont.)

### 10-Gigabit Ethernet PHYs (cont.)

Twisted Pair Copper

|           |   |
|-----------|---|
| BCM84823B | Dual-Port 10GBASE-T Transceiver with XAU1™ & XFI, 25 mm BGA |
| BCM84833  | Dual-Port 10GBASE-T Transceiver with XAU1™ & XFI, 25 mm BGA |
| BCM84834  | Quad-Port 10GBASE-T Transceiver with XAU1™, 27 mm BGA       |
| BCM84836  | Dual-Port 10GBASE-T Transceiver with XFI, 21 mm BGA         |
| BCM84844  | Quad-Port 10GBASE-T Transceiver with XAU1™, 27 mm BGA       |
| BCM84846  | Dual-Port 10GBASE-T Transceiver with XFI, 21 mm BGA         |
| BCM84848  | Quad-Port 10GBASE-T Transceiver, 23 mm BGA                  |

### 40-Gigabit Ethernet PHYs

|          |  |
|----------|--|
| BCM84328 | Dual 40GbE/Octal 10GbE QSFP+ XLPP-to-XLAUI PHY     |
| BCM84740 | Quad-Channel 40GbE PPI-to-XAU1™ LAN/WAN PHY        |
| BCM84741 | 40GbE XLPP-to-XLAUI/Quad 10G with IEEE MACsec/1588 |
| BCM84784 | Dual 40GbE/Octal 10GbE QSFP+ XLPP-to-XLAUI PHY     |

### Automotive Solutions

Gigabit Ethernet Switches and PHYs

|          |   |
|----------|---|
| BCM89200 | 4-Port Automotive Ethernet Switch with Two Integrated PHYs  |
| BCM89500 | 7-Port Automotive Ethernet Switch with Four Integrated PHYs |
| BCM89501 | 7-Port Automotive Ethernet Switch with Five Integrated PHYs |
| BCM89610 | 10/100/1000 Single-Port Automotive Ethernet Transceiver     |
| BCM89810 | BroadR-Reach® Single-Port Automotive Ethernet Transceiver   |

### BroadR-Reach® PHYs

|           |   |
|-----------|---|
| BCM54810  | GMII/RGMII 10/100/1000BASE-T Copper BroadR-Reach® Transceiver                                 |
| BCM54810S | 10/100/1000BASE-T BroadR-Reach® Transceiver with Dual Media Interface                         |
| BCM54811  | GMII/RGMII 10/100/1000BASE-T Copper BroadR-Reach® Transceiver with IEEE 1588v2                |
| BCM54811S | 10/100/1000BASE-T Copper BroadR-Reach® Transceiver with Dual Media Interface with IEEE 1588v2 |
| BCM54880  | SGMII 10/100/1000BASE-T Copper BroadR-Reach® Transceiver                                      |
| BCM54881  | S3MII 10/100BASE-TX Copper BroadR-Reach® Transceiver  |

### Fast Ethernet PHYs

Single/Dual PHY

|          |  |
|----------|--|
| BCM5221  | Single-Port RMII 10/100BASE-TX Transceiver                               |
| BCM5222  | Dual-Port MII 10/100BASE-TX Transceiver                                  |
| BCM5241  | Single-Port MII 10/100BASE-TX Transceiver                                |
| BCM5251E | Single-Port MII 10/100BASE-TX Transceiver with 1588v2, IEE & Wake-on-LAN |

Quad PHY

|          |                              |
|----------|------------------------------|
| BCM5208R | 10/100BASE-TX/FX Transceiver |
|----------|------------------------------|

## Physical Layer (cont.)

### Fast Ethernet PHYs (cont.)

Octal PHY

|           |  |
|-----------|--|
| BCM5228   | 10/100BASE-TX Transceiver              |
| BCM5248   | 10/100BASE-TX/FX Transceiver           |
| BCM52681  | S3MII 10/100BASE-TX Copper Transceiver |
| BCM52681E | S3MII 10/100BASE-TX Copper Transceiver |

### Fibre Channel PHYs

|         |   |
|---------|---|
| BCM8421 | Intelligent 1/2/4 Gb Fibre Channel Retimer/Repeater with EyeOpener® |
| BCM8422 | 4-Channel 1/2/4 Gb Fibre Channel Loop Circuit with EyeOpener®       |
| BCM8426 | 12-Channel 1/2/4 Gb Fibre Channel Loop Circuit with EyeOpener®      |

### Gigabit Ethernet PHYs

Single

|                  |  |
|------------------|--|
| BCM5421xE Family | 10/100/1000BASE-T Gigabit Ethernet Transceiver   |
| BCM5461          | 10/100/1000BASE-T Copper Transceiver   |
| BCM54610         | RGMII 10/100/1000BASE-T Copper Transceiver   |
| BCM54612E        | RGMII 10/100/1000BASE-T Copper Transceiver with IEEE 802.3az EEE                             |
| BCM54614E        | RGMII 1000/100/10BASE-T Copper Transceiver with IEEE 1588v2 & IEEE 802.3az EEE               |
| BCM54616         | GMII 10/100/1000BASE-T Copper Transceiver  |
| BCM54616S        | RGMII 10/100/1000BASE-T Transceiver with Dual Media Interface                                |
| BCM54618E        | GMII 10/100/1000BASE-T Copper Transceiver with IEEE 802.3az EEE                              |
| BCM54618SE       | RGMII 10/100/1000BASE-T Transceiver with Dual Media Interface with IEEE 1588v2 & 802.3az EEE |
| BCM54619E        | GMII 1000/100/10BASE-T Copper Transceiver with IEEE 1588v2 & IEEE 802.3az EEE                |
| BCM5461S         | 10/100/1000BASE-T Transceiver with Dual Media Interface                                      |

Dual

|           |  |
|-----------|--|
| BCM5482   | 10/100/1000BASE-T Copper Transceiver                                     |
| BCM5482S  | 10/100/1000BASE-T Transceiver with Dual Media Interface                  |
| BCM5482SE | 10/100/1000BASE-T Gigabit Transceiver with Dual Media Interface & Sync-E |
| BCM8012S  | 1000BASE-X/100BASE-FX Transceiver  |

Quad

|           |  |
|-----------|--|
| BCM54240  | Quad-Port SGMII Copper/Fiber Gigabit Ethernet Transceiver                        |
| BCM54640E | SGMII 10/100/1000BASE-T Transceiver with Dual Media Interface, IEEE 1588v2 & EEE |
| BCM5464R  | RGMII/SGMII 10/100/1000BASE-T Copper Transceiver                                 |
| BCM5464SR | RGMII/SGMII 10/100/1000BASE-T Transceiver with Dual Media Interface              |
| BCM5466R  | RGMII/SGMII 10/100/1000BASE-T Copper Transceiver                                 |
| BCM5466SR | RGMII/SGMII 10/100/1000BASE-T Transceiver with Dual Media Interface              |

## Physical Layer (cont.)

### Gigabit Ethernet PHYs (cont.)

#### Octal

|           |  |
|-----------|--|
| BCM54280  | Octal-Port SGMII Copper Gigabit Ethernet Transceiver   |
| BCM54282  | Octal-Port QSGMII Copper Gigabit Ethernet Transceiver  |
| BCM54285  | Octal-Port QSGMII Copper/Fiber Gigabit Ethernet Transceiver                                    |
| BCM54380  | Octal-Port 10/100/1000BASE-T 40 nm Transceiver   |
| BCM54382  | Octal-Port QSGMII to 10/100/1000BASE-T 40 nm Transceiver                                       |
| BCM54680  | SGMII 10/100/1000BASE-T Copper Transceiver   |
| BCM54680E | SGMII 10/100/1000BASE-T Copper Transceiver with IEEE 802.3az EEE                               |
| BCM54682E | QSGMII 10/100/1000BASE-T Copper Transceiver with IEEE 1588v2 & IEEE 802.3az EEE                |
| BCM54684  | QSGMII 10/100/1000BASE-T Copper Transceiver  |
| BCM54685  | QSGMII 10/100/1000BASE-T Transceiver with Dual Media Interface                                 |
| BCM54685E | QSGMII 10/100/1000BASE-T Transceiver with Dual Media Interface, IEEE 1588v2 & IEEE 802.3az EEE |
| BCM54880E | SGMII 10/100/1000BASE-T Copper Transceiver with IEEE 1588v2 & IEEE 802.3az EEE                 |
| BCM5488R  | RGMII 10/100/1000BASE-T Copper Transceiver   |
| BCM84780  | Octal-Port 10GbE SFI-XFI PHY with IEEE 1588  |

### Optical Transport Products

#### 100G Mux/Demux

|          |   |
|----------|---|
| BCM84790 | 100GbE/OTN VSR28 to CAUI Gearbox                      |
| BCM84793 | 100GbE/OTN VSR28 to CAUI Gearbox with 10x10G Retiming |

#### 40G Mux/Demux

|          |  |
|----------|--|
| BCM84141 | 45G (2 x 23G DQPSK) to SFI-5.1 Demux                               |
| BCM84142 | SFI-5.1 to OTU3/45 Gbps (2 x 23 Gbps D-QPSK) Multiplexer           |
| BCM84145 | Multirate 40 Gbps 1:4 Demux with CDR, VGA, & Advanced Feature Set  |
| BCM84146 | Multirate 40 Gbps 4:1 Mux with DPSK/Duobinary Precoder             |
| BCM84147 | Multirate 40 Gbps 1:16 Demux with CDR, VGA, & Advanced Feature Set |
| BCM84148 | Multirate 40 Gbps 16:1 Multiplexer with DPSK/Duobinary Precoder    |
| BCM84151 | 45G (2 x 23G DQPSK) to SFI-5.1 Demux                               |
| BCM84152 | SFI-5.1-to-OTU3/45 Gbps (2 x 23 Gbps D-QPSK) Multiplexer           |

#### 10G CDRs

|         |   |
|---------|---|
| BCM8102 | SONET/SDH Quad-Rate Small Form Factor EyeOpener®                      |
| BCM8302 | Dual Multirate Low-Power 8.5G-11.4G CDR with EyeOpener®               |
| BCM8304 | Quad Multirate Low-Power 8.5G-11.4G CDR with EyeOpener®               |
| BCM8305 | Quad Low-Power 10.3125 Gbps CDR with EyeOpener®                       |
| BCM8322 | Dual Multirate 10 Gbps Small Form Factor Referenceless CDR/EyeOpener® |
| BCM8324 | Quad Low-Power Unidirectional 10GbE Referenceless CDR/EyeOpener®      |
| BCM8325 | Quad Low-Power Unidirectional 10GbE Referenceless CDR/Eye Opener®     |

## Physical Layer (cont.)

### Optical Transport Products (cont.)

#### 10G Mux/Demux

|         |   |
|---------|---|
| BCM8105 | Multirate 10 Gbps CDR/Demultiplexer with Electronic Dispersion Compensation |
| BCM8108 | Multirate 10 Gbps SONET/SDH/10GbE/FC/FEC Transmitter Multiplexer            |
| BCM8109 | Multirate 10 Gbps SONET/SDH/10GbE/FC/FEC Demultiplexer                      |
| BCM8124 | Low-Jitter 10 Gbps 16:1 Multiplexer with Clock Generation & MSA Features    |
| BCM8125 | 10 Gbps 1:16 Demultiplexer with CDR & Limiting Amplifier                    |
| BCM8128 | Multirate 10 Gbps SONET/SDH/10GbE/FEC Transmitter                           |
| BCM8129 | Multirate 10 Gbps SONET/SDH/10GbE/FEC Demultiplexer Receiver                |

#### 10G Transceivers

|         |  |
|---------|--|
| BCM8152 | 10 Gbps Transceiver with Bus Skew & Limiting Amplifier                     |
| BCM8154 | Multirate Low-Power 9.9G-11.4G NRZ/Duobinary Transceiver with 10G Clock    |
| BCM8155 | Multirate Low-Power 8.5G-11.4G RZ/NRZ/Duobinary Transceiver with 10G Clock |
| BCM8156 | Multirate Low-Power 9.9G-11.4G XFI-to-SFI-4.1 Transceiver                  |
| BCM8157 | Multirate Low-Power 8.5G-11.4G XFI to SFI-4.1 Transceiver                  |
| BCM8167 | Dual Multirate Low-Power 8.5G-11.4G NRZ Optical Transport PHY              |

#### 2.5G Transceivers

|         |   |
|---------|---|
| BCM8211 | 2.488 Gbps Transceiver with Internal Loop Timing                |
| BCM8220 | 2.488/2.667 Gbps SONET/SDH Transceiver                          |
| BCM8228 | VariRate™ Multirate Transceiver with SONET Rate Adaptation & PM |

#### FEC Products

|         |  |
|---------|--|
| BCM8512 | 10 Gb DWDM OTU-2 Transport Processor with G.709 FEC, SONET/SDH/10GbE Performance Monitor |
|---------|--|

### Power over Ethernet Products

|          |   |
|----------|---|
| BCM59101 | Quad Integrated IEEE 802.3af-Compliant Controller     |
| BCM59103 | Quad Integrated IEEE 802.3at-Compliant Controller     |
| BCM59111 | Quad Integrated IEEE 802.3at-Compliant PSE Controller |

## Processors

### Carrier & Service Provider

|          |  |
|----------|--|
| BCM1122  | Single-Core Processor for Control Plane Applications                               |
| BCM1125H | Single-Core 64-bit MIPS® Processor with GbE, PCI, HT                               |
| BCM1250  | Dual-Core 64-bit MIPS® Processor with GbE, PCI, HT                                 |
| BCM1255  | Dual-Core 64-bit MIPS® Processor with DDR2, GbE, PCI-X®                            |
| BCM1280  | Dual-Core 64-bit MIPS® Processor with DDR2, GbE, SPI-4/HT                          |
| BCM1455  | Quad-Core 64-bit MIPS® Processor with DDR2, GbE, PCI-X®                            |
| BCM1480  | Quad-Core 64-bit MIPS® Processor with DDR2, GbE, SPI-4/HT                          |
| BCM53001 | Single-Core 32-bit 400 MHz MIPS® Processor with DDR2, PCI Express®, & RGMII        |
| BCM53003 | Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RGMII, & SGMII |

## Processors (cont.)

### Carrier & Service Provider (cont.)

|               |   |
|---------------|---|
| BCM53903      | Timing over Packet (ToP) Processor for Precision Timing Applications                  |
| XLP200 Series | Multicore, Multithreaded Superscalar Communication Processor                          |
| XLP300 Series | XLP316, XLP308, XLP304, & XLP3xxLite Multicore, Multithreaded Processor® Family       |
| XLP400 Series | XLP432 & XLP416 Multicore, Multithreaded Processor® Family                            |
| XLP800 Series | XLP832 & XLP816 Multicore, Multithreaded Processor® Family                            |
| XLR500 Series | XLR532, XLR516, & XLR508 Processors   |
| XLR700 Series | XLR732 & XLR716 Processors  |
| XLS200 Series | XLS208 & XLS204 Multicore, Multithreaded Processors®                                  |
| XLS400 Series | XLS416, XLS408, XLS408Lite, XLS404, & XLS404Lite Multicore, Multithreaded Processors® |

### Data Center

|               |   |
|---------------|---|
| BCM1250       | Dual-Core 64-bit MIPS® Processor with GbE, PCI, HT                                    |
| BCM1255       | Dual-Core 64-bit MIPS® Processor with DDR2, GbE, PCI-X®                               |
| BCM1280       | Dual-Core 64-bit MIPS® Processor with DDR2, GbE, SPI-4/HT                             |
| BCM1455       | Quad-Core 64-bit MIPS® Processor with DDR2, GbE, PCI-X®                               |
| BCM1480       | Quad-Core 64-bit MIPS® Processor with DDR2, GbE, SPI-4/HT                             |
| BCM53903      | Timing over Packet (ToP) Processor for Precision Timing Applications                  |
| XLP200 Series | Multicore, Multithreaded Superscalar Communication Processor                          |
| XLP300 Series | XLP316, XLP308, XLP304, & XLP3xxLite Multicore, Multithreaded Processor® Family       |
| XLP400 Series | XLP432 & XLP416 Multicore, Multithreaded Processor® Family                            |
| XLP800 Series | XLP832 & XLP816 Multicore, Multithreaded Processor® Family                            |
| XLR500 Series | XLR532, XLR516, & XLR508 Processors   |
| XLR700 Series | XLR732 & XLR716 Processors  |
| XLS200 Series | XLS208 & XLS204 Multicore, Multithreaded Processors®                                  |
| XLS400 Series | XLS416, XLS408, XLS408Lite, XLS404, & XLS404Lite Multicore, Multithreaded Processors® |

### Enterprise

|          |   |
|----------|---|
| BCM1122  | Single-Core Processor for Control-Plane Applications                        |
| BCM1125H | Single-Core 64-bit MIPS® Processor with GbE, PCI, HT                        |
| BCM1250  | Dual-Core 64-bit MIPS® Processor with GbE, PCI, HT                          |
| BCM1255  | Dual-Core 64-bit MIPS® Processor with DDR2, GbE, PCI-X®                     |
| BCM1280  | Dual-Core 64-bit MIPS® Processor with DDR2, GbE, SPI-4/HT                   |
| BCM1455  | Quad-Core 64-bit MIPS® Processor with DDR2, GbE, PCI-X®                     |
| BCM1480  | Quad-Core 64-bit MIPS® Processor with DDR2, GbE, SPI-4/HT                   |
| BCM53001 | Single-Core 32-bit 400 MHz MIPS® Processor with DDR2, PCI Express®, & RGMII |

## Processors (cont.)

### Enterprise (cont.)

|                 |   |
|-----------------|---|
| BCM53003        | Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RGMII, & SGMII    |
| BCM5301x Series | StrataGX™ Communications Processor with Network Acceleration Hardware                 |
| BCM53084        | 4-Port GbE SoC with Integrated CPU for Video/VoIP Phone Applications                  |
| BCM53903        | Timing over Packet (ToP) Processor for Precision Timing Applications                  |
| BCM5836P        | Single-Core 32-bit MIPS® Control-Plane Processor with PCI                             |
| XLP200 Series   | Multicore, Multithreaded Superscalar Communication Processor                          |
| XLP300 Series   | XLP316, XLP308, XLP304, & XLP3xxLite Multicore, Multithreaded Processor® Family       |
| XLP400 Series   | XLP432 & XLP416 Multicore, Multithreaded Processor® Family                            |
| XLP800 Series   | XLP832 & XLP816 Multicore, Multithreaded Processor® Family                            |
| XLR500 Series   | XLR532, XLR516, & XLR508 Processors   |
| XLR700 Series   | XLR732 & XLR716 Processors  |
| XLS200 Series   | XLS208 & XLS204 Multicore, Multithreaded Processors®                                  |
| XLS400 Series   | XLS416, XLS408, XLS408Lite, XLS404, & XLS404Lite Multicore, Multithreaded Processors® |

### Home and Small Business

|                 |   |
|-----------------|---|
| BCM1125H        | Single-Core 64-bit MIPS® Processor with GbE, PCI, HT                                  |
| BCM53001        | Single-Core 32-bit 400 MHz MIPS® Processor with DDR2, PCI Express®, & RGMII           |
| BCM53003        | Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RGMII, & SGMII    |
| BCM5301x Series | StrataGX™ Communications Processor with Network Acceleration Hardware                 |
| BCM53903        | Timing over Packet (ToP) Processor for Precision Timing Applications                  |
| BCM5836P        | Single-Core 32-bit MIPS® Control-Plane Processor with PCI                             |
| XLS200 Series   | XLS208 & XLS204 Multicore, Multithreaded Processors®                                  |
| XLS400 Series   | XLS416, XLS408, XLS408Lite, XLS404, & XLS404Lite Multicore, Multithreaded Processors® |

## Security

### Deep-Packet Inspection

|         |   |
|---------|---|
| NLS025  | 250 Mbps NETL7™ Knowledge-Based Processor |
| NLS045  | 500 Mbps NETL7™ Knowledge-Based Processor |
| NLS055  | 500 Mbps NETL7™ Knowledge-Based Processor |
| NLS1005 | 10 Gbps NETL7™ Knowledge-Based Processor  |
| NLS1008 | 10 Gbps NETL7™ Knowledge-Based Processor  |
| NLS105  | 1 Gbps NETL7™ Knowledge-Based Processor   |
| NLS2008 | 20 Gbps NETL7™ Knowledge-Based Processor  |
| NLS205  | 2.5 Gbps NETL7™ Knowledge-Based Processor |

## Security (cont.)

### Point-of-Sale

Secure Applications Processors

|         |  |
|---------|--|
| BCM5888 | 133 MHz ARM11™ Secure Applications Processor |
| BCM5891 | 400 MHz ARM11™ Secure Applications Processor |
| BCM5892 | Secure Applications Processor                |
| BCM5893 | Secure Applications Processor                |

### Secure Card Readers & Authentication Tokens

Secure Applications Processors

|         |  |
|---------|--|
| BCM5880 | 150 MHz ARM M3™ Secure Applications Processor with RFID Reader |
| BCM5882 | 150 MHz ARM M3™ Secure Applications Processor with RFID Reader |
| BCM5883 | 150 MHz ARM M3™ Secure Applications Processor                  |

## Switching

### Automotive Solutions

Gigabit Ethernet Switches & PHYs

|          |   |
|----------|---|
| BCM89200 | 4-Port Automotive Ethernet Switch with Two Integrated PHYs  |
| BCM89500 | 7-Port Automotive Ethernet Switch with Four Integrated PHYs |
| BCM89501 | 7-Port Automotive Ethernet Switch with Five Integrated PHYs |
| BCM89610 | 10/100/1000 Single-Port Automotive Ethernet Transceiver     |
| BCM89810 | BroadR-Reach® Single-Port Automotive Ethernet Transceiver   |

### Carrier & Service Provider

100-Gigabit Ethernet

|                 |  |
|-----------------|--|
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet        |
| BCM88030 Series | XGS Core® Switch Series                              |
| BCM88600 Series | 100-Gigabit Ethernet (GbE) Capable Switching Silicon |

40-Gigabit Ethernet

|                 |  |
|-----------------|--|
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet  |
| BCM56840 Series | High-Capacity StrataXGS® Trident Ethernet Switch Series with Integrated 10G Serial PHY |
| BCM56850 Series | High-Capacity StrataXGS® Trident II Ethernet Switch Series                             |

10-Gigabit Ethernet

|                 |   |
|-----------------|---|
| BCM56440 Series | Integrated Ethernet Multilayer Switch & Traffic Manager   |
| BCM56540 Series | High Bandwidth 1GbE/10GbE/40GbE Multilayer Ethernet Switch  |
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet   |
| BCM56628        | 8-Port 10GbE/HiGig2™ Ethernet Multilayer Switch with Table Expansion                                    |
| BCM56638        | 8-Port 10GbE/HiGig2™ Ethernet Multilayer Expandable Carrier Aggregation Switch                          |
| BCM56820        | 24-Port 10GbE & 4-Port Multilayer Gigabit Ethernet Switch   |
| BCM56821        | 12-Port 10GbE & 8-Port HiGig™ & 4-Port GbE Multilayer Switch  |
| BCM56840 Series | 640 Gbps High Density 10/40GbE/HiGig2™ StrataXGS® Ethernet Switch Series with Integrated 10G Serial PHY |

## Switching (cont.)

### Carrier & Service Provider (cont.)

Gigabit Ethernet

|                 |   |
|-----------------|---|
| BCM53600 Series | Integrated 1G-EPON SoC  |
| BCM56224        | 24-Port Gigabit Ethernet Switch with Four 2.5GbE/HiGig+™ Ports                                |
| BCM56226        | 16-Port Gigabit Ethernet Switch with Four 2.5GbE/HiGig+™ Ports                                |
| BCM56228        | 8-Port Gigabit Ethernet Switch with Four 2.5GbE/HiGig+™ Ports                                 |
| BCM56240 Series | 46 Gbps Integrated Ethernet Multilayer Switch & Traffic Manager                               |
| BCM56330        | 112 Gbps Multilayer Gigabit Ethernet Switch   |
| BCM56340        | 48-Port GbE Ethernet Multilayer Switch with Four 10GbE Uplinks with Stacking & Integrated CPU |
| BCM56440 Series | Integrated Ethernet Multilayer Switch & Traffic Manager                                       |
| BCM56540 Series | High Bandwidth 1GbE/10GbE/40GbE Multilayer Ethernet Switch                                    |
| BCM56334        | 24-Port GbE Multilayer Carrier Access Switch with Four 10GbE/HiGig2™ Ports                    |
| BCM56526        | 28-Port GbE Multilayer Carrier Aggregation Switch with Six 10GbE/HiGig2™ Ports                |
| BCM56624        | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion     |
| BCM56630        | 112 Gbps Multilayer Gigabit Ethernet Switch   |
| BCM56634        | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion     |
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet   |
| BCM56685        | 24-Port 2.5GbE Multilayer Carrier Access Switch with Four 10GbE/HiGig2™ Ports                 |
| BCM88020 Series | 24 Gbps Ethernet Packet Processor Series  |

XGS Core® Fabrics

|          |   |
|----------|---|
| BCM88025 | Programmable Packet Processor                           |
| BCM88130 | 630 Gbps High-Performance Packet Switch Fabric          |
| BCM88230 | Fabric Interface with Integrated Traffic Management     |
| BCM88231 | 50 Gbps Advanced Traffic Manager with HiGig2™ Interface |
| BCM88235 | Fabric Interface with Integrated Traffic Management     |
| BCM88236 | 80 Gbps Advanced Traffic Manager with HiGig2™ Interface |

Fast Ethernet

|                 |  |
|-----------------|--|
| BCM53280        | 24-Port FE & 4-Port Gigabit Ethernet Carrier Access Switch               |
| BCM5328x Family | Managed Switch with 8/16/24 FE Ports + 2GbE/4GbE/2GbE + 2.5G SerDes      |
| BCM56112        | 24-Port FE & 2-Port Gigabit Ethernet Switch with Two 10GbE/HiGig+™ Ports |
| BCM56130        | 24-Port FE & 2-Port 1G/2.5G Ethernet Switch with Two 10GbE/HiGig2™ Ports |
| BCM56132        | 24-Port FE & 2-Port 1G/2.5G Ethernet Switch with Two 10GbE/HiGig2™ Ports |

## Switching (cont.)

### Carrier & Service Provider (cont.)

#### Fast Ethernet (cont.)

|          |   |
|----------|---|
| BCM56134 | 24-Port FE & 4-Port Gigabit Ethernet Multilayer Carrier Access Switch                   |
| BCM56150 | 24-Port FE Managed GbE Switch with Four 10GbE Uplinks, Integrated CPU, & 16 Copper PHYs |

#### Dune Network Fabrics

|          |   |
|----------|---|
| BCM88750 | 1.32 Tbps Self-Routing Switching Element with Integrated Full-Duplex Serial Links |
| DNFE600  | 600 Gbps Self-Routing Switching Element with Integrated Full-Duplex Serial Links  |

#### Dune Network Switches & Line-Card Devices

|                 |  |
|-----------------|--|
| BCM88440        | 100 Gbps Integrated Full-Duplex Switch with L2/L3 Packet Processing & Fabric Interface |
| BCM88540        | 100 Gbps Traffic Manager with Integrated Fabric Interface                              |
| BCM88640        | 100 Gbps with Integrated MAC, Packet Processing, Traffic Management, & Fabric Access   |
| BCM88650 Series | 200G Integrated Packet Processor, Traffic Manager & Fabric Interface                   |

#### Dune Network Reference Designs

|         |  |
|---------|--|
| NegevII | 400G Reference Designs, 2 x 200G Line Card (BCM88650) + 1 Fabric Card (BCM88750) |
|---------|--|

### Data Center

#### 100-Gigabit Ethernet

|                 |  |
|-----------------|--|
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet  |
| BCM88600 Series | 100-Gigabit Ethernet Capable Switching Silicon |

#### 40-Gigabit Ethernet

|                 |  |
|-----------------|--|
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet  |
| BCM56840 Series | High-Capacity StrataXGS® Trident Ethernet Switch Series with Integrated 10G Serial PHY |

|                 |  |
|-----------------|--|
| BCM56850 Series | High-Capacity StrataXGS® Trident II Ethernet Switch Series |
|-----------------|--|

#### 10-Gigabit Ethernet

|                 |   |
|-----------------|---|
| BCM56624        | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion               |
| BCM56634        | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion               |
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet   |
| BCM56820        | 24-Port 10GbE & 4-Port Multilayer Gigabit Ethernet Switch   |
| BCM56821        | 12-Port 10GbE & 8-Port HiGig™ & 4-Port GbE Multilayer Switch  |
| BCM56840 Series | 640 Gbps High Density 10/40GbE/HiGig2™ StrataXGS® Ethernet Switch Series with Integrated 10G Serial PHY |

#### Gigabit Ethernet

|                 |   |
|-----------------|---|
| BCM56534        | 24-Port GbE Multilayer Switch with Four 10GbE/HiGig2™ Ports |
| BCM56538        | 48-Port GbE Multilayer Switch with Four 10GbE/HiGig2™ Ports |
| BCM56540 Series | High Bandwidth 1GbE/10GbE/40GbE Multilayer Ethernet Switch  |

## Switching (cont.)

### Data Center (cont.)

#### Gigabit Ethernet (cont.)

|          |   |
|----------|---|
| BCM56624 | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion |
| BCM56634 | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion |

|          |   |
|----------|---|
| BCM56640 | Extensible 1/10/40/100GbE Multilayer Ethernet |
|----------|---|

#### StrataXGS® Fabrics

|                 |   |
|-----------------|---|
| BCM56720        | 16-Port 256 Gbps HiGig™/HiGig2™ Switch Fabric           |
| BCM56740 Series | 480/640 Gbps Switch Fabric                              |
| BCM56750        | 32-Port 1280 Gbps Switch Fabric                         |
| BCM56931        | 50 Gbps DDR3 Deep Buffer Manager with HiGig2™ Interface |
| BCM56936        | 80 Gbps DDR3 Deep Buffer Manager with HiGig2™ Interface |

#### XGS Core® Fabrics

|          |   |
|----------|---|
| BCM88025 | Programmable Packet Processor                           |
| BCM88130 | 630 Gbps High-Performance Packet Switch Fabric          |
| BCM88230 | Fabric Interface with Integrated Traffic Management     |
| BCM88231 | 50 Gbps Advanced Traffic Manager with HiGig2™ Interface |
| BCM88235 | Fabric Interface with Integrated Traffic Management     |
| BCM88236 | 80 Gbps Advanced Traffic Manager with HiGig2™ Interface |

#### Dune Networks Fabrics

|          |   |
|----------|---|
| BCM88750 | 1.32 Tbps Self-Routing Switching Element with Integrated Full-Duplex Serial Links |
| DNFE600  | 600 Gbps Self-Routing Switching Element with Integrated Full-Duplex Serial Links  |

#### Dune Networks Switches & Line-Card Devices

|                 |  |
|-----------------|--|
| BCM88640        | 100 Gbps with Integrated MAC, Packet Processing, Traffic Management, & Fabric Access |
| BCM88650 Series | 200G Integrated Packet Processor, Traffic Manager & Fabric Interface                 |

#### Dune Networks Reference Designs

|         |  |
|---------|--|
| NegevII | 400G Reference Designs, 2 x 200G Line Card (BCM88650) + 1 Fabric Card (BCM88750) |
|---------|--|

### Enterprise

#### 100-Gigabit Ethernet

|                 |   |
|-----------------|---|
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet |
|-----------------|---|

#### 40-Gigabit Ethernet

|                 |  |
|-----------------|--|
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet  |
| BCM56840 Series | High-Capacity StrataXGS® Trident Ethernet Switch Series with Integrated 10G Serial PHY |

|                 |  |
|-----------------|--|
| BCM56850 Series | High-Capacity StrataXGS® Trident II Ethernet Switch Series |
|-----------------|--|

#### 10-Gigabit Ethernet

|                 |   |
|-----------------|---|
| BCM56540 Series | High Bandwidth 1GbE/10GbE/40GbE Multilayer Ethernet Switch                                |
| BCM56624        | 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion |
| BCM56640 Series | Extensible 1/10/40/100GbE Multilayer Ethernet   |
| BCM56820        | 24-Port 10GbE & 4-Port Multilayer Gigabit Ethernet Switch                                 |

## Switching (cont.)

### Enterprise (cont.)

#### 10-Gigabit Ethernet (cont.)

BCM56821 12-Port 10GbE & 8-Port HiGig™ & 4-Port GbE Multilayer Switch

BCM56840 Series 640 Gbps High Density 10/40GbE/HiGig2™ StrataXGS® Ethernet Switch Series with Integrated 10G Serial PHY

#### Gigabit Ethernet

BCM56224 24-Port Gigabit Ethernet Switch with Four 2.5GbE/HiGig+™ Ports

BCM56226 16-Port Gigabit Ethernet Switch with Four 2.5GbE/HiGig+™ Ports

BCM56228 8-Port Gigabit Ethernet Switch with Four 2.5GbE/HiGig+™ Ports

BCM56540 Series High Bandwidth 1GbE/10GbE/40GbE Multilayer Ethernet Switch

BCM56534 24-Port GbE Multilayer Switch with Four 10GbE/HiGig2™ Ports

BCM56538 48-Port GbE Multilayer Switch with Four 10GbE/HiGig2™ Ports

BCM56624 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion

BCM56634 48-Port GbE with Four 10GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion

BCM56640 Series Extensible 1/10/40/100GbE Multilayer Ethernet StrataXGS® Fabrics

BCM56545 High Bandwidth 1GbE/10GbE/40GbE Multilayer Switch

BCM56720 16-Port 256 Gbps HiGig™/HiGig2™ Switch Fabric

BCM56740 480/640 Gbps Switch Fabric

BCM56750 32-Port 1280 Gbps Switch Fabric

#### Wireless LAN

BCM56540 Series High Bandwidth 1GbE/10GbE/40GbE Multilayer Ethernet Switch

#### XGS Core® Fabrics

BCM88025 Programmable Packet Processor

BCM88130 High-Performance Packet Switch Fabric

BCM88230 Fabric Interface with Integrated Traffic Management

BCM88235 Fabric Interface with Integrated Traffic Management

#### Fast Ethernet

BCM56112 24-Port FE & 2-Port Gigabit Ethernet Switch with Two 10GbE/HiGig+™ Ports

### EPON Solutions

#### Optical Network Units (ONUs)

BCM5360x Multirate IEEE 802.3ah 1G EPON/2.5G Turbo-EPON® MDU SoC (China CTC Compliant)

### Home & Small Business

#### Gigabit Ethernet

BCM53115 Smart GbE Switch

BCM53118 9-Port GbE Switch with Eight Integrated 10/100/1000 PHYs

BCM53125 7-Port Integrated GbE Energy Efficient Ethernet™ Switch

BCM53128 Multiport Gigabit Ethernet Switch

BCM53312 8-Port GbE + 4-Port GbE Highly Integrated Multilayer Switch SoC

## Switching (cont.)

### Home & Small Business (cont.)

#### Gigabit Ethernet (cont.)

BCM53313 16-Port GbE + 2-Port GbE Highly Integrated Multilayer Switch SoC

BCM53314 24-Port GbE Highly Integrated Multilayer Switch SoC

BCM53322 8-Port GbE + 4-Port GbE Energy Efficient Ethernet™ Integrated Multilayer Switch SoC

BCM53323 16-Port GbE + 2-Port GbE Energy Efficient Ethernet™ Integrated Multilayer Switch SoC

BCM53324 24-Port GbE Energy Efficient Ethernet™ Highly Integrated Multilayer Switch SoC

BCM53714 24-Port Gig SGMII Switch with Integrated CPU

BCM53716 16-Port Gig SGMII Switch with Integrated CPU

BCM53718 48GbE Port + Optional 2GbE Port Highly Integrated Multilayer Switch SoC

BCM53724 24-Port GbE Port Highly Integrated Multilayer Switch SoC

BCM53726 16-Port GbE Port Highly Integrated Multilayer Switch SoC

BCM5387 5GbE Port Switch with Integrated SerDes

BCM5388 8GbE Port Switch with Integrated GbE Copper PHY

BCM5389 8GbE Port Switch with Integrated SerDes

BCM5396 16GbE Port Switch with Integrated SerDes

BCM56140 24-Port GbE + Four 10GbE Managed Layer 3 Switch

BCM56142 24-Port GbE Ethernet Switch with Two XAU1™/HiGig2™ Ports

#### Fast Ethernet

BCM53001 Single-Core 32-bit 400 MHz MIPS® Processor with DDR2, PCI Express®, & RGMII

BCM53003 Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RGMII, & SGMII

BCM53101 Integrated 7 FE Managed Switch

BCM53202 Integrated 8 FE + 2GbE Managed Switch

BCM53212 Integrated 16 FE + 2GbE Managed Switch

BCM53242 Integrated 24 FE + 2GbE Managed Switch

BCM5324M Integrated 24 FE + 2GbE Managed Switch

BCM5325E Integrated 10/100BASE-T/TX 5/6-Port Managed Switch

BCM5325F Integrated 10/100BASE-T/TX 5/6-Port Managed Switch

BCM5325M Integrated 10/100BASE-T/TX 5/6-Port Managed Switch

BCM53262 Integrated 24 FE + 4GbE Managed Switch

BCM5328M Integrated 10/100BASE-T/TX 9-Port Switch

BCM5328x Family Managed Switch with 8/16/24 FE Ports + 2GbE/4GbE/2GbE + 2.5G SerDes

BCM5348 Single-Chip L2+ Managed Switch with 48 10/100 Ports + Four GbE Ports

## Switching (cont.)

### Packet Transport (OTN/TDM)

Dune Networks Fabrics

BCM88750 1.32 Tbps Self-Routing Switching Element with 2 Data Path Pipes: 1 TDM/OTN + 1 for Data

Dune Networks Switches & Line-Card Devices

BCM88650 200G Packet Processor, Traffic Manager & Fabric I/F Single-Chip Device

BCM88654 200G TDM/OTN Fabric Access Device

Dune Networks Reference Designs

NegevII 400G Reference Designs, 2 x 200G Line Card (BCM88650 Series) + 1 Fabric Card (BCM88750)

### Software

FASTPATH® Software

FASTPATH FASTPATH® Networking Software

FASTPATH-SMB FASTPATH® Small/Medium Business Networking Software

FASTPATH-UAP FASTPATH® Unified Access Point Networking Software

FASTPATH-UWS FASTPATH® Unified Wireless Switching Networking Software

SmartPATH SmartPATH™ Networking Software

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