# Broadband Communications

## Broadband Carrier Access

### EPON Solutions

**Optical Line Terminals**
- **TK3401**: Multirate 1 or 2 Gbps EPON Intelligent PON Node (IPN) Controller
- **TK3721**: 1 Gbps MAC Controller for EPON Optical Line Terminals
- **TK3723**: Dual TURBO-EPON® (1 or 2 Gbps) Optical Line Terminal SoC

**Optical Network Units**
- **BCM55030**: 10 Gbps EPON Optical Network Unit SoC
- **TK3713**: EPON Optical Network Unit (ONU) SoC
- **TK3714**: TURBO-EPON® (1 or 2 Gbps) Optical Network Unit SoC
- **TK3715**: TURBO-EPON® (1 or 2 Gbps) Optical Network Unit SoC with Support for China's Interoperability Standard

### GPON Solutions

**BCM6800**: Single-Chip GPON Gateway Processors
**BCM6816**: Single-Chip GPON Home Gateway with MoCA®
**BCM6818**: GPON-Based Residential Gateway SoC Solution

### xDSL CO Solutions

**BCM6511/6526**: Central Office High-Density Multi-DSL Chipset (Multimode ADSL2+/VDSL2)
**BCM6512/6522**: Central Office Very-High-Density ADSL2+ Chipset (All Annexes)
**BCM6515**: High-Performance VoIP Digital Signal Processor
**BCM6516/6524**: Central Office High-Performance Multi-DSL FTTH Chipset (Multimode ADSL2+/VDSL2)

### xDSL CPE Solutions

**Combo Solutions**
- **BCM6362**: Single-Chip IAD with Integrated ADSL2+, 802.11n, and DECT

**xDSL CPE Solutions**
- **BCM6306**: VDSL2 30 AMP/6-Band and Channel Bonding Analog Front-End Solution
- **BCM63281**: Single-Chip ADSL2+ Router/Gateway Solution
- **BCM63338**: ADSL2+ Router Solution
- **BCM6358**: Single-Chip ADSL2+ Integrated Access Device Solution
- **BCM6362**: Single-Chip IAD with Integrated ADSL2+, 802.11n, and DECT
- **BCM6368**: Residential VDSL2/ADSL2+ Gateway Solution
- **BCM6519**: Multi-DSL Transceiver
- **BCM6529**: Low-Power Dual-Channel Analog Front-End Device
- **BCM6816**: Single-Chip GPON Home Gateway with MoCA®

## Cable

### Cable Modem Solutions

**Cable Modem ICs**
- **BCM3320**: Broadband Media Processor with Integrated MoCA®
- **BCM3349**: QAMLink® DOCSIS®/EuroDOCSIS™ 2.0 Single-Chip Cable Modem
- **BCM3371**: Integrated DOCSIS®/EuroDOCSIS™ 2.0 High-Performance Data Gateway
- **BCM3378**: Integrated DOCSIS®/EuroDOCSIS™ 2.0 Single-Chip Embedded Multimedia Terminal Adapter
- **BCM3379**: Integrated DOCSIS®/EuroDOCSIS™ 2.0 Embedded Multimedia Terminal Adapter and Gateway
- **BCM3382**: DOCSIS®/Euro-DOCSIS™ 3.0 Cable Modem SoC
Cable (cont.)

Cable Modem Solutions (cont.)

Silicon Tuner ICs

BCM3410 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

Demodulation/Modulation ICs

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 and Media Centers
BCM3510 HDTV/CATV Receiver
BCM3520 ATSC/VSB/NTSC Digital Cable-Ready DTV Receiver
BCM3545 QAM Digital Receiver
BCM3560 Digital TV System-on-Chip

Silicon Tuner ICs

BCM3405 Multichannel Low-Noise Amplifier (LNA)
BCM3416 Advanced Digital Cable Tuner
BCM3418 Direct Conversion Cable Tuner
BCM3450 MoCA® Power Amplifier/Low-Noise Amplifier (LNA)
BCM7002 Cable Set-Top Box Digital Transport Adapter (DTA) SoC
BCM7003 SD Cable Interactive Receiver with USB DVR
BCM7004 SD Cable Basic Receiver

Single-Chip Set-Top Box ICs

BCM7019 HD Cable SoC
BCM7025 HD Cable SoC with Integrated MoCA® 1.1
BCM7043 HD/SD AVC/MPEG Video/Audio Encoder and Transcoder/Transcaler/Transrater
BCM7115 Single-Chip Cable Set-Top Box with DVR
BCM7118 Single-Chip Digital Cable Set-Top Box with DOCSIS® 2.0 and Channel Bonding
BCM7119 HD Cable SoC
BCM7125 HD Cable SoC with Integrated MoCA® 1.1
BCM7205 Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable DVR STBs
BCM7206 Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable USB DVR STBs
BCM7309 Single-Chip Back-End Set-Top Decoder
BCM7400 Dual AVC/MPEG-2/VC-1 HD Digital Video Decoder for Satellite, IP, and Cable
BCM7403 Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable DVR STBs with Watch-and-Record DVR
BCM7405 Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable STBs with Picture-in-Picture
BCM7408 Client High Definition Set-Top Box SoC
BCM7410 Multiformat HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, and Cable DVR STBs
BCM7420 Multiformat Dual HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, and Cable DVR STBs
BCM7422 High-Performance OpenGL® 2.0 Full-Resolution 3D-TV Dual HD Set-Top Box SoC
BCM7425 High-Performance OpenGL® 2.0 Full-Resolution 3D-TV Dual HD with HD Transcoding Set-Top Box SoC
BCM7454 AVC/MPEG-2/VC-1/SD Output System-on-Chip Solution
Cable (cont.)

Cable Set-Top Box Solutions (cont.)

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

BCM7466  Multiformat SD Digital Video/Audio SoC for Satellite, IP, and Cable STBs
BCM7530  ISDB-T High Definition Digital Terrestrial Converter Box SoC
BCM7540  ISDB-T High Definition Digital Terrestrial Converter Box SoC
BCM7580  HD Cable Converter Box Solution with DVB-C Tuner and AVS

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 Adapters

BCM3545  QAM Digital Receiver
BCM7002  Cable Set-Top Box Digital Transport Adapter (DTA) SoC
BCM7004  SD Cable Basic Receiver
BCM7572  High Definition Digital Transport Adapter (DTA) Cable Set-Top Box SoC

High Definition Audio/Video/Graphics System Processors

BCM3510  HDTV/CATV Receiver
BCM3520  ATSC/VSB/NTSC Digital Cable-Ready DTV Receiver
BCM7400  Dual AVC/MPEG-2/VC-1 HD Digital Video Decoder for Satellite, IP, and Cable
BCM7410  Multiformat HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, and Cable DVR STBs
BCM7420  Multiformat Dual HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, and Cable DVR STBs

MPEG-2 Digital Audio/Video Encoders

BCM7043  HD/SD AVC/MPEG Video/Audio Encoder and Transcoder/Transrater

Consumer Electronics

Blu-ray® High Definition DVD Solutions

BCM7630  Single-Chip Front- and Back-End Solution for Blu-ray® High Definition DVD Players and Networked Applications
BCM7631  Single-Chip Front- and Back-End Solution for Blu-ray® High Definition DVD Players and Networked Applications
BCM7632  Single-Chip Solution for Blu-ray® High Definition DVD Players, Recorders, and Networked Applications
BCM7633  Single-Chip Front- and Back-End Solution for Blu-ray® High Definition DVD Players and Networked Applications with 3D Support
BCM7634  Single-Chip Front- and Back-End Solution for Blu-ray® High Definition DVD Players and Networked Applications with 3D Support
**Consumer Electronics (cont.)**

### High Definition Audio/Video/Graphics System Processors
- **BCM3510**: HDTV/CATV Receiver
- **BCM3520**: ATSC/VS/NTSC Digital Cable-Ready DTV Receiver
- **BCM7410**: Multiformat HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, and Cable DVR STBs
- **BCM7420**: Multiformat Dual HD Digital Video/Audio with Embedded MoCA® for Satellite, IP, and Cable DVR STBs

### Netbook Solutions
- **BCM70015**: Low-Power PCI Express® HD Media Processor

### Digital TV

#### Digital TV Solutions
- **BCM35121**: ATSC-Based Low-Cost Connected TV SoC
- **BCM35125**: Global 50/60 Hz Low-Cost Connected TV SoC
- **BCM35230**: Global 120 Hz Connected TV SoC
- **BCM3549**: Full HD 1080p Multiformat Decoder-Connected Digital TV System-on-Chip
- **BCM3556**: Full HD 1080p Multiformat Decoder-Connected Digital TV System-on-Chip

### IPTV

#### IPTV Solutions
- **BCM7205**: Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable DVR STBs
- **BCM7206**: Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable STBs
- **BCM7208**: Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable STBs
- **BCM7405**: Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable STBs with Picture-in-Picture
- **BCM7408**: AVC/MPEG-2/VC-1 HD DVR for Cable, Satellite, and IP STBs
- **BCM7413**: Multiformat HD Digital Video/Audio SoC with DVR and 3D Graphics
- **BCM7414**: AVC/MPEG-2/VC-1 HD Digital Video for Cable, Satellite, and IP STBs
- **BCM7466**: Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable STBs
- **BCM7468**: Multiformat SD Digital Video/Audio SoC for Satellite, IP, and Cable STBs
- **BCM7550**: Multiformat SD Digital Video/Audio SoC for Satellite, IP, and Cable STBs

### Satellite

#### HDTV/SDTV Video, Graphics, and Receiver Products
- **BCM3430**: 8PSK Digital Satellite Tuner
- **BCM4500**: 8PSK/TC Advanced Modulation Satellite Receiver
- **BCM4505**: DVB-S2 Advanced Modulation Satellite Receiver
- **BCM4506**: Dual DVB-S2 Advanced Modulation Satellite Receiver

#### MPEG-2 Digital Audio/Video Encoders
- **BCM7043**: HD/SD AVC/MPEG Video/Audio Encoder and Transcoder/Transcaler/Transrater
Satellite (cont.)

**Satellite Set-Top Box Solutions**

 BCM7205  Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable DVR STBs
 BCM7206  Multiformat HD Digital Video/Audio SoC for Satellite, IP, and Cable USB DVR STBs
 BCM7312  Single-Chip Satellite Set-Top Decoder
 BCM7324  Standard Definition Satellite System-on-Chip with Integrated DVB-S2
 BCM7325  High Definition Satellite System-on-Chip with Integrated DVB-S2
 BCM7335  High Definition DVR Satellite System-on-Chip
 BCM7340  HD Satellite SoC with Power Management and MoCA® for Home Networking
 BCM7342  HD DVR Satellite SoC with Power Management and MoCA® for Home Networking
 BCM7344  Single-Tuner HD AVC Satellite Receiver with MoCA®
 BCM7346  Dual-Tuner HD AVC Satellite Receiver with MoCA®
 BCM7350  HD Satellite SoC with Power Management
 BCM7352  HD DVR Satellite SoC with Power Management
 BCM7354  Single-Tuner HD AVC Satellite Receiver
 BCM7356  Dual-Tuner HD AVC Satellite Receiver
 BCM7408  Thin Client SoC with Integrated MoCA®
 BCM7466  Multiformat SD Digital Video/Audio SoC for Satellite, IP, and Cable STBs

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**Mobile & Wireless**

**Applications and Multimedia Processors**

**IP Communications Solutions**

 BCM11107  Persona™ Media Gigabit IP Communications Processor
 BCM11109  Persona™ Prime Gigabit IP Communications Processor
 BCM11140  Persona™ ICE Gigabit IP Communications Processor
 BCM11170  Persona™ Classic Fast Ethernet IP Communications Processor
 BCM11181  Persona™ Presence 720p HD Multimedia Coprocessor
 BCM11182  Persona™ ICE 1080p HD Multimedia Coprocessor
 BCM11195  Persona™ Entry Fast Ethernet IP Communications Processor
 BCM11221  Persona™ Media IP Communications Processor
 BCM1190  Low-Cost Fast Ethernet VoIP Processor

**Stand-Alone Media Terminal Adapters**

 BCM1111  VoIP CPE Engine

**Tablet Application Processors**

 BCM11181  Persona™ Presence 720p HD Multimedia Coprocessor
 BCM11182  Persona™ ICE 1080p HD Multimedia Coprocessor
 BCM11211  Persona™ Media Processor
 BCM11300  Persona™ ICE Single Core Application & Multimedia Processor
 BCM11311  Persona™ ICE Dual Core Application & Multimedia Processor

**Wi-Fi® Phone Solutions**

 BCM1161  Mobile VoIP Processor
Bluetooth® RF Silicon and Software Solutions

**Combo Solutions**

- BCM2048: Bluetooth® EDR + FM Radio Single-Chip Solution
- BCM2049: Single-Chip Bluetooth® 2.1 + EDR with Integrated FM Transceiver
- BCM2075: Multifunction Monolithic IC with AGPS, Bluetooth® 2.1 + EDR, and Integrated FM Transceiver
- BCM20751: Bluetooth® + GPS + FM Combination (‘Combo’) Chip Solution
- BCM4325: Low-Power 802.11a/b/g with Bluetooth® 2.1 + EDR and FM
- BCM4329: Low-Power 802.11n with Bluetooth® 2.1 + EDR and FM (TX and RX)
- BCM943224HMB: Dual-Band 802.11n and Bluetooth® 3.0 Half MiniCard Reference Design
- BCM943225HMB: Single-Band 802.11n and Bluetooth® 3.0 Half MiniCard Reference Design

**Blutonium® Bluetooth® Silicon**

- BCM2004: Bluetooth® Radio for QUALCOMM®-Based Handsets
- BCM2044: Single-Chip Bluetooth® Mono Headset IC
- BCM2044S: ROM-Based Noise and Echo Reduction Mono Headset IC
- BCM2047: Single-Chip Bluetooth® Wireless Audio Solution with DSP
- BCM2049: Single-Chip Bluetooth® 2.1 + EDR with Integrated FM Transceiver
- BCM2070: Single-Chip Bluetooth® 2.1 + EDR HCI Solution
- BCM20740: Advanced Headset Solution with Fast Charge and Wind Noise Reduction
- BCM20741: ROM-Based, Single-Microphone, Mono Headset IC with Noise and Echo Reduction
- BCM20742: ROM-Based, Dual-Microphone, Mono Headset IC with Noise and Echo Reduction
- BCM2075: Multifunction Monolithic IC with AGPS, Bluetooth® 2.1 + EDR, and Integrated FM Transceiver
- BCM20751: Bluetooth® + GPS + FM Combination (‘Combo’) Chip Solution
- BCM4325: Low-Power 802.11a/b/g with Bluetooth® 2.1 + EDR and FM
- BCM4329: Low-Power 802.11n with Bluetooth® 2.1 + EDR and FM (TX and RX)

**Widcomm® Bluetooth® Software**

- BCM1000-BTLA: Bluetooth® Communications Software for Android™ Mobile Technology Platform
- BCM1000-BTW: Bluetooth® Communications Software for Windows®
- BCM1000-BTWM: Bluetooth® Communications Software for Windows Mobile®
- BCM1000-VPP: Bluetooth® Communications Software for Windows® 7 and Vista®
- BCM1200-BTE: Bluetooth® Communication Software for Embedded Systems
- BCM1200-BTEM: Bluetooth® Communication Software for Mobile Phones
- BCM1600-BTE: BTE-Audio Software and Development Environment
### 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 + 312 MHz ARM 9, Integrated ISP, 65 nm EDGE SoC
- BCM5903x Baseband Processor, RF, and Power Management

**Mainstream Segment**

**Mainstream ICs**
- BCM2091 65 nm HSPA Multimode/Multiband 2G/3G RF Transceiver
- BCM2157 65 nm 7.2 Mbps HSDPA Baseband Processor
- BCM21553 60 nm 7.2 Mbps/5.8 Mbps HSPA Multimedia Baseband Processor
- BCM59035 Mobile Power Management Unit

**Mainstream Low-Cost Android™ Platform**
- BCM2157 + 500 MHz ARM 11, 65 nm 7.2 Mbps HSDPA Baseband
- BCM59035 Processor and Power Management

**Mainstream Low-Cost HSPA 3D Android™ Platform**
- BCM2091 + 832 MHz ARM11, OpenGL® 2.0 60nm 7.2 Mbps/5.8 Mbps
- BCM21553 + HSPA Multimedia Baseband Processor, RF, and
- BCM59035 Power Management

**Mobile TV Receivers**
- BCM2930 DVB-T Single-Chip Tuner + Demodulator for Mobile Applications
- BCM2940 DVB-H and DVB-T Single-Chip Tuner + Demodulator for Mobile Applications

### GPS

**GPS Silicon Solutions**

**Combo Solutions**
- BCM2075 Multifunction Monolithic IC with AGPS, Bluetooth® 2.1 + EDR, and Integrated FM Transceiver
- BCM2076 Multifunction Monolithic IC with AGPS (GPS/SAKS/QZSS/GLONASS), Bluetooth® 4.0, and Integrated FM (TX and RX)

**GPS Silicon ICs**
- BCM2075 Multifunction Monolithic IC with AGPS, Bluetooth® 2.1 + EDR, and Integrated FM Transceiver
- BCM2076 Multifunction Monolithic IC with AGPS (GPS/SAKS/QZSS/GLONASS), Bluetooth® 4.0, and Integrated FM (TX and RX)
- BCM4750 Single-Chip AGPS Solution
- BCM4751 Integrated Monolithic GPS Receiver
- BCM4760 Personal Navigation System-on-Chip

**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)

**Near Field Communication Solutions**
- BCM20203: Near Field Communication (NFC)/13.56 MHz Radio
  Frequency Identification Read/Write Solution

Wireless LAN

### 802.11 Wireless LAN Solutions

**Combo Solutions**
- BCM4319: Single-Chip 802.11a/b/g/n MAC/Baseband/Radio
- BCM4325: Low-Power 802.11a/b/g with Bluetooth® 2.1 + EDR and FM
- BCM4329: Low-Power 802.11n with Bluetooth® 2.1 + EDR and FM (TX and RX)
- BCM94313HM-GEPA: 1x1 802.11n and Bluetooth® 3.0 High-Speed Half MiniCard
  Reference Design
- BCM943224HMB: Dual-Band 802.11n and Bluetooth® 3.0 Half MiniCard
  Reference Design
- BCM943225HMB: Single-Band 802.11n and Bluetooth® 3.0 Half MiniCard
  Reference Design

### 802.11 WLAN ICs

- BCM4312: 802.11a/b/g Transceiver for SDIO and PCI Express®
- BCM4313: InConcert® Wi-Fi® and Bluetooth® Coexistence Interface for
  Single/Dual Antenna Designs
- BCM4318E: 802.11b/g Transceiver with BroadRange® Technology
- BCM4319: Single-Chip 802.11a/b/g/n MAC/Baseband/Radio
- 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: Intensi-fi® XLR Media Family
  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
- BCM4325: Low-Power 802.11a/b/g with Bluetooth® 2.1 + EDR and FM
- BCM4329: Low-Power 802.11n with Bluetooth® 2.1 + EDR and FM (TX and RX)
- BCM4331: Single-Chip 802.11n Dual-Band 3x3 Wireless Solution
- BCM4342: Intensi-fi® Single-Chip 802.11n Enterprise Solution
- BCM4717: Intensi-fi® XLR 802.11n (2.4/5 GHz) Router 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: 802.11b/g and Single-Stream 802.11n 2.4 GHz Router
  Family
- BCM5357: Intensi-fi® XLR 802.11n Router Solution
- BCM5358x: 802.11n VoIP Router Solutions with 3G/4G Support
  Family
- BCM94313HM-GEPA: 1x1 802.11n and Bluetooth® 3.0 High-Speed Half MiniCard
  Reference Design
- BCM943224HMB: Dual-Band 802.11n and Bluetooth® 3.0 Half MiniCard
  Reference Design
- BCM943225HMB: Single-Band 802.11n and Bluetooth® 3.0 Half MiniCard
  Reference Design
- BCM94322HMC: Dual-Band 802.11n PCI Express® Half MiniCard
  Reference Design
- BCM94717: 802.11n (2.4/5 GHz) Router Reference Design

### Wi-Fi® Phone Solutions

- BCM1161: Mobile VoIP Processor
## Network Infrastructure

### Ethernet Controllers

#### Enterprise Client

**Client Manageability**

- **BCM5761**: 10/100/1000BASE-T Ethernet Controller with Integrated Security and TruManage™ Technology
- **BCM5761E**: 10/100/1000BASE-T Ethernet Controller with Integrated Security, TruManage™ Technology and 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

#### Gigabit Ethernet Controllers

- **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-10V PCI Express® Gen-2 Controller with DCBx

#### 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
- **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
- **BCM5722**: Integrated Gigabit Ethernet Controller with Integrated Transceiver
- **BCM5723**: NetXtreme® Gigabit Ethernet Controller for Servers
Ethernet Controllers (cont.)

Home
Fast Ethernet Controllers
BCM5906M 10/100BASE-T Ethernet Controller with Integrated Transceiver

Gigabit Ethernet Controllers
BCM57781 NetXtreme® Gigabit Ethernet Controller with Integrated EEE Compliant Transceiver
BCM57785 NetXtreme® Gigabit Ethernet Controller with Integrated Card Reader and EEE Compliant Transceiver
BCM57788 NetLink® Gigabit Ethernet Controller with Phy
BCM57788M NetLink® Gigabit Ethernet Controller with Phy for Mobile Applications
BCM57789 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 and EEE Compliant Transceiver
BCM57765 NetXtreme® Gigabit Ethernet Controller with Integrated SDXC Card Reader, ASF and EEE Compliant Transceiver

Physical Layer

10-Gigabit Ethernet PHYs
Backplane
BCM8071 XAUI™-to-Serial 10GBASE-KR Backplane Transceiver
BCM8073 XAUI™-to-Dual-Channel Serial 10GBASE-KR Backplane Transceiver

Optical
BCM84753 Quad-Channel 10-GbE SFI-to-XFI PHY with EDC
BCM84754 Quad-Channel 10-GbE SFI-to-XFI PHY with EDC
BCM8704 Serial 10-GbE/Fibre Channel Transceiver with XAUI™ Interface
BCM8705 Serial 10-GbE/FC/SONET LAN/WAN PHY with XAUI™ Interface
BCM8706 XAUI™-to-Serial 10GBASE-LRM Transceiver
BCM8707 Single-Channel 10-GbE SFI-to-XAUI™ Transceiver with EDC
BCM8724 Dual 10-Gigabit Ethernet XFI-to-XAUI™ Transceiver
BCM8725 Dual 10-Gigabit Ethernet XFI-to-XAUI™ LAN/WAN Transceiver
BCM8726 Dual-Channel 10-GbE SFI-to-XAUI™ Transceiver with EDC
BCM8727 Dual-Channel 10-GbE SFI-to-XAUI™ Transceiver with EDC
BCM8728 Dual-Channel 10-GbE SFI-to-XAUI™ 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

SerDes
BCM8011 4-Channel 3.125-GbE 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
### Physical Layer (cont.)

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

**SerDes (cont.)**

<table>
<thead>
<tr>
<th>Device Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>BCM8022</td>
<td>XAUI™-to-10GBASE-CX4 Retimer</td>
</tr>
<tr>
<td>BCM8040</td>
<td>8-Channel Multirate 1.0 Gbps-3.2 Gbps Retimer Switch</td>
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<tr>
<td>BCM8071</td>
<td>XAUI™-to-Serial 10GBASE-KR Backplane Transceiver</td>
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<tr>
<td>BCM8073</td>
<td>XAUI™-to-Dual-Channel Serial 10GBASE-KR Backplane Transceiver</td>
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#### Twisted Pair Copper

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<th>Device Code</th>
<th>Description</th>
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<tr>
<td>BCM84823B</td>
<td>Dual-Port 10GBASE-T Transceiver</td>
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<tr>
<td>BCM84831</td>
<td>10GBASE-T Transceiver</td>
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<tr>
<td>BCM84833</td>
<td>Dual-Port 10GBASE-T Transceiver</td>
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<tr>
<td>BCM84834</td>
<td>Four-Port 10GBASE-T Transceiver</td>
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#### BroadR-Reach® PHYs

<table>
<thead>
<tr>
<th>Device Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>BCM54810</td>
<td>Single-Port 10/100/1000BASE-T Gigabit Ethernt BroadR-Reach® Transceiver</td>
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<tr>
<td>BCM54880</td>
<td>Octal-Port 10/100/1000BASE-T Gigabit Copper BroadR-Reach® Transceiver</td>
</tr>
<tr>
<td>BCM54881</td>
<td>Octal-Port 10/100BASE-TX Ethernet BroadR-Reach® Transceiver</td>
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#### Fast Ethernet PHYs

**Single/Dual PHY**

<table>
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<tbody>
<tr>
<td>BCM5221</td>
<td>Single-Port RMII 10/100BASE-TX Transceiver</td>
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<tr>
<td>BCM5222</td>
<td>Dual-Port MII 10/100BASE-TX Transceiver</td>
</tr>
<tr>
<td>BCM5241</td>
<td>Single-Port MII 10/100BASE-TX Transceiver</td>
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**Quad PHY**

<table>
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<tr>
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<tr>
<td>BCM5208R</td>
<td>10/100BASE-TX/FX Transceiver</td>
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**Octal PHY**

<table>
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<tr>
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<tr>
<td>BCM5228</td>
<td>10/100BASE-TX Transceiver</td>
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<tr>
<td>BCM5248</td>
<td>10/100BASE-TX/FX Transceiver</td>
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#### Fibre Channel PHYs

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<tr>
<td>BCM8421</td>
<td>Intelligent 1/2/4 Gb Fibre Channel Retimer/Repeater with EyeOpener®</td>
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<tr>
<td>BCM8422</td>
<td>4-Channel 1/2/4 Gb Fibre Channel Loop Circuit with EyeOpener®</td>
</tr>
<tr>
<td>BCM8426</td>
<td>12-Channel 1/2/4 Gb Fibre Channel Loop Circuit with EyeOpener®</td>
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#### Gigabit Ethernet PHYs

**Single**

<table>
<thead>
<tr>
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<th>Description</th>
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<tr>
<td>BCM5461</td>
<td>10/100/1000BASE-T Gigabit Copper Transceiver</td>
</tr>
<tr>
<td>BCM54610</td>
<td>10/100/1000BASE-T Gigabit Copper Transceiver with RGMII Interface</td>
</tr>
<tr>
<td>BCM54612E</td>
<td>Single-Port RGMII to 10/100/1000BASE-T Gigabit Copper Transceiver with IEEE 802.3az EEE Support</td>
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<tr>
<td>BCM54614E</td>
<td>Single-Port RGMII to 1000/100/10BASE-T GbE Transceiver with IEEE 1588v2 and IEEE 802.3az EEE Support</td>
</tr>
<tr>
<td>BCM54616</td>
<td>10/100/1000BASE-T Gigabit Copper Transceiver with GMII Interface</td>
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<tr>
<td>BCM54616S</td>
<td>10/100/1000BASE-T Gigabit Transceiver with Copper/Fiber Media Interface</td>
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<tr>
<td>BCM54618E</td>
<td>Single-Port GMII to 10/100/1000BASE-T Gigabit Copper Transceiver with IEEE 802.3az EEE Support</td>
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<tr>
<td>BCM54619E</td>
<td>Single-Port GMII to 1000/100/10BASE-T GbE Transceiver with IEEE 1588v2 and IEEE 802.3az EEE Support</td>
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<tr>
<td>BCM5461S</td>
<td>10/100/1000BASE-T Gigabit Transceiver with Copper/Fiber Media Interface</td>
</tr>
<tr>
<td>BCM5481</td>
<td>10/100/1000BASE-T Gigabit Copper Transceiver</td>
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</tbody>
</table>
Physical Layer (cont.)

Gigabit Ethernet PHYs (cont.)

**Dual**
- BCM5482: Dual-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM5482S: Dual-Port 10/100/1000BASE-T Gigabit Transceiver with Copper/Fiber Media Interface
- BCM5482SE: Dual-Port 10/100/1000BASE-T Gigabit Transceiver with Copper/Fiber Media Interface/Sync-E
- BCM8012S: Dual-Port 1000BASE-X/100BASE-FX Transceiver

**Quad**
- BCM54640E: Quad-Port SGMII 10/100/1000BASE-T or Fiber Transceiver with IEEE 1588v2 and IEEE 802.3az EEE Support
- BCM5464R: Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM5464SR: Quad-Port 10/100/1000BASE-T Gigabit Transceiver with Copper/Fiber Media Interface
- BCM5466R: Quad-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM5466SR: Quad-Port 10/100/1000BASE-T Gigabit Transceiver with Copper/Fiber Media Interface

**Octal**
- BCM54680: Octal-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM54680E: Octal-Port SGMII 10/100/1000BASE-T GbE Copper Transceiver with IEEE 802.3az EEE Support
- BCM54684: Octal-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM54880: Octal-Port 10/100/1000BASE-T Gigabit Copper BroadR-Reach® Transceiver
- BCM54880E: Octal-Port SGMII 1000/100/10BASE-T GbE Transceiver with IEEE 1588v2 and IEEE 802.3az EEE Support
- BCM5488R: Octal-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM5488S: Octal-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM54980: Octal-Port 10/100/1000BASE-T Gigabit Copper Transceiver
- BCM54981: Octal-Port 10/100/1000BASE-T Gigabit Copper Transceiver with Remote PHY

**Optical Transport Products**

**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®

**10G Mux/Demux**
- BCM8105: Multirate 10 Gbps CDR/Demultiplexer with Electronic Dispersion Compensation
- BCM8108: Multirate 10 Gbps SONET/SDH/10-GbE/FC/FEC Transmitter Multiplexer
- BCM8109: Multirate 10 Gbps SONET/SDH/10-GbE/FC/FEC Demultiplexer
- BCM8124: Low-Jitter 10 Gbps 16:1 Multiplexer with Clock Generation and MSA Features
- BCM8125: 10 Gbps 1:16 Demultiplexer with CDR and Limiting Amplifier
- BCM8128: Multirate 10 Gbps SONET/SDH/10-GbE/FC Transmitter
- BCM8129: Multirate 10 Gbps SONET/SDH/10-GbE/FC Demultiplexer Receiver
Optical Transport Products (cont.)

10G Transceivers

BCM8152 10 Gbps Transceiver with Bus Skew and 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 and PM

FEC Products

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

Power over Ethernet Products

BCM59101 Quad Integrated IEEE 802.3af-Compliant Controller
BCM59103 Quad Integrated IEEE 802.3at-Compliant Controller
BCM59105 Quad Integrated BroadR-Reach® PoE Controller
BCM59111 Quad Integrated IEEE 802.3at-Compliant PSE Controller

Processors

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

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

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
Processors (cont.)

**Enterprise (cont.)**
- 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®, and RMII
- BCM53003: Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RMII, and SGMII
- BCM5836P: Single-Core 32-bit MIPS® Control-Plane Processor with PCI

**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®, and RMII
- BCM53003: Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RMII, and SGMII
- BCM5836P: Single-Core 32-bit MIPS® Control-Plane Processor with PCI

**Security**

**Authentication Tokens**
- Secure Applications Processors
  - BCM5882: Secure Applications Processor
  - BCM5883: Secure Applications Processor
  - BCM5892: Secure Applications Processor

**Encryption Coprocessors**
- IPSec
  - BCM5812: Low-Power Security Processor
  - BCM5825: High-Performance 1 Gbps Security Processor
  - BCM5841: Multi-Gigabit Security Processor

- SSL
  - BCM5825: High-Performance 1 Gbps Security Processor

**PC Client Security**
- Secure Applications Processors
  - BCM5882: Secure Applications Processor
  - BCM5883: Secure Applications Processor
  - BCM5892: Secure Applications Processor
  - BCM5893: Secure Applications Processor

**Point-of-Sale**
- Secure Applications Processors
  - BCM5892: Secure Applications Processor
  - BCM5893: Secure Applications Processor

**Switching**

**Carrier and Service Provider**

**100-Gigabit Ethernet**
- BCM88600: 100-Gigabit Ethernet (GbE) Capable Switching Silicon Series

**10-Gigabit Ethernet**
- BCM56511: 4-Port 10-GbE/HiGig+™ Multilayer Switch
- BCM56628: 8-Port 10-GbE/HiGig2™ Ethernet Multilayer Switch with Table Expansion
- BCM56638: 8-Port 10-GbE/HiGig2™ Ethernet Multilayer Expandable Carrier Aggregation Switch
- BCM56820: 24-Port 10-GbE and 4-Port Multilayer Gigabit Ethernet Switch
- BCM56821: 12-Port 10-GbE and 8-Port HiGig™ and 4-Port GbE Multilayer Switch
- BCM56840: 640 Gbps High Density 10/40-GbE/HiGig2™ StrataXGS® Series Ethernet Switch Series with Integrated 10G Serial PHY
### Gigabit Ethernet

- **BCM56214**: 24 GbE Ports + Two 1-GbE Uplink Ports + Two 2.5-GbE Stacking Ports
- **BCM56216**: 16 GbE Ports + Two 1-GbE Uplink Ports + Two 2.5-GbE Stacking Ports
- **BCM56218**: 48 GbE Ports + Two 1-GbE Uplink Ports + Two 2.5-GbE Stacking Ports
- **BCM56224**: 24-Port Gigabit Ethernet Switch with Four 2.5-GbE/HiGig+™ Ports
- **BCM56226**: 16-Port Gigabit Ethernet Switch with Four 2.5-GbE/HiGig+™ Ports
- **BCM56228**: 8-Port Gigabit Ethernet Switch with Four 2.5-GbE/HiGig+™ Ports
- **BCM56330**: 112 Gbps Multilayer Gigabit Ethernet Switch
- **BCM56334**: 24-Port GbE Multilayer Carrier Access Switch with Four 10-GbE/HiGig2™ Ports
- **BCM56510**: 24-Port GbE Multilayer Switch
- **BCM56512**: 24-Port GbE Multilayer Switch with Two 10-GbE/HiGig+™ Ports
- **BCM56513**: 24-Port GbE Multilayer Switch with Three 10-GbE/HiGig+™ Ports
- **BCM56514**: 24-Port GbE Multilayer Switch with Four 10-GbE/HiGig+™ Ports
- **BCM56526**: 28-Port GbE Multilayer Carrier Aggregation Switch with Six 10-GbE/HiGig2™ Ports
- **BCM56624**: 48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion
- **BCM56630**: 112 Gbps Multilayer Gigabit Ethernet Switch
- **BCM56634**: 48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion
- **BCM56685**: 24-Port 2.5-GbE Multilayer Carrier Access Switch with Four 10-GbE/HiGig2™ Ports

### Fast Ethernet

- **BCM53280**: 24-Port FE and 4-Port Gigabit Ethernet Carrier Access Switch
- **BCM5328x**: Managed Switch with 8/16/24 FE Ports + 2 GbE/4 GbE/2 Family GbE + 2.5G SerDes
- **BCM56112**: 24-Port FE and 2-Port Gigabit Ethernet Switch with Two 10-GbE/HiGig+™ Ports
- **BCM56132**: 24-Port FE and 2-Port 1G/2.5G Ethernet Switch with Two 10-GbE/HiGig2™ Ports
- **BCM56134**: 24-Port FE and 4-Port Gigabit Ethernet Multilayer Carrier Access Switch

### 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

### Data Center

#### 100-Gigabit Ethernet
- **BCM88600**: 100-Gigabit Ethernet Capable Switching Silicon
**Switching (cont.)**

### Data Center (cont.)

#### 10-Gigabit Ethernet

<table>
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<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>BCM56624</td>
<td>48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet</td>
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<tr>
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<td>Multilayer Switch with Table Expansion</td>
</tr>
<tr>
<td>BCM56634</td>
<td>48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet</td>
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<tr>
<td></td>
<td>Multilayer Switch with Table Expansion</td>
</tr>
<tr>
<td>BCM56820</td>
<td>24-Port 10-GbE and 4-Port Multilayer Gigabit Ethernet</td>
</tr>
<tr>
<td>BCM56821</td>
<td>12-Port 10-GbE and 8-Port HiGig™ and 4-Port GbE</td>
</tr>
<tr>
<td>BCM56840</td>
<td>640 Gbps High Density 10/40-GbE/HiGig2™ StrataXGS® Series</td>
</tr>
<tr>
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<td>Ethernet Switch Series with Integrated 10G Serial PHY</td>
</tr>
<tr>
<td>BCM56534</td>
<td>24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2™ Ports</td>
</tr>
<tr>
<td>BCM56538</td>
<td>48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2™ Ports</td>
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<td>BCM56624</td>
<td>48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet</td>
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<tr>
<td>BCM56634</td>
<td>48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet</td>
</tr>
<tr>
<td>BCM56820</td>
<td>24-Port 10-GbE and 4-Port Multilayer Gigabit Ethernet</td>
</tr>
<tr>
<td>BCM56821</td>
<td>12-Port 10-GbE and 8-Port HiGig™ and 4-Port GbE</td>
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<tr>
<td>BCM56840</td>
<td>640 Gbps High Density 10/40-GbE/HiGig2™ StrataXGS® Series</td>
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<td>Ethernet Switch Series with Integrated 10G Serial PHY</td>
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#### Gigabit Ethernet

<table>
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<th>Description</th>
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<tbody>
<tr>
<td>BCM56720</td>
<td>16-Port 256 Gbps HigGig™/HigGig2™ Switch Fabric</td>
</tr>
<tr>
<td>BCM56931</td>
<td>50 Gbps DDR3 Deep Buffer Manager with HiGig2™ Interface</td>
</tr>
<tr>
<td>BCM56936</td>
<td>80 Gbps DDR3 Deep Buffer Manager with HiGig2™ Interface</td>
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#### StrataXGS® Fabrics

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
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<td>Programmable Packet Processor</td>
</tr>
<tr>
<td>BCM88130</td>
<td>630 Gbps High-Performance Packet Switch Fabric</td>
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<tr>
<td>BCM88230</td>
<td>Fabric Interface with Integrated Traffic Management</td>
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<tr>
<td>BCM88231</td>
<td>50 Gbps Advanced Traffic Manager with HiGig2™ Interface</td>
</tr>
<tr>
<td>BCM88235</td>
<td>Fabric Interface with Integrated Traffic Management</td>
</tr>
<tr>
<td>BCM88236</td>
<td>80 Gbps Advanced Traffic Manager with HiGig2™ Interface</td>
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</table>

#### XGS Core™ Fabrics

<table>
<thead>
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<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>BCM88440</td>
<td>100 Gbps Integrated Full-Duplex Switch with L2/L3 Packet Processing</td>
</tr>
<tr>
<td>BCM88540</td>
<td>Full-Duplex 100 Gbps Traffic Manager with Integrated Fabric Interface</td>
</tr>
<tr>
<td>BCM88640</td>
<td>Full-Duplex 100 Gbps with Integrated MAC, Packet Processing, Traffic Management, and Fabric Access</td>
</tr>
<tr>
<td>FE600</td>
<td>6.25 Gbps Self-Routing Switching Element with Integrated Full-Duplex Serial Links</td>
</tr>
<tr>
<td>P130</td>
<td>80 Gbps Integrated Full-Duplex Switch with L2/L3 Packet Processing</td>
</tr>
<tr>
<td>P230</td>
<td>80 Gbps Traffic Manager with Integrated Fabric Interface</td>
</tr>
<tr>
<td>P330</td>
<td>80 Gbps Integrated Full-Duplex MAC, Packet Processing, Traffic Management, and Fabric Access</td>
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#### Dune Networks Fabrics

<table>
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<th>Description</th>
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<tr>
<td>BCM88440</td>
<td>100 Gbps Integrated Full-Duplex Switch with L2/L3 Packet Processing</td>
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<tr>
<td>BCM88540</td>
<td>Full-Duplex 100 Gbps Traffic Manager with Integrated Fabric Interface</td>
</tr>
<tr>
<td>BCM88640</td>
<td>Full-Duplex 100 Gbps with Integrated MAC, Packet Processing, Traffic Management, and Fabric Access</td>
</tr>
<tr>
<td>FE600</td>
<td>6.25 Gbps Self-Routing Switching Element with Integrated Full-Duplex Serial Links</td>
</tr>
<tr>
<td>P130</td>
<td>80 Gbps Integrated Full-Duplex Switch with L2/L3 Packet Processing</td>
</tr>
<tr>
<td>P230</td>
<td>80 Gbps Traffic Manager with Integrated Fabric Interface</td>
</tr>
<tr>
<td>P330</td>
<td>80 Gbps Integrated Full-Duplex MAC, Packet Processing, Traffic Management, and Fabric Access</td>
</tr>
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#### Dune Networks Reference Designs

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>Gobi</td>
<td>1.28 Tbps Full-Duplex Gobi Reference Design</td>
</tr>
<tr>
<td>Harpoon</td>
<td>24xGbE + 2x10-GbE Switch Reference Design with Xelerated’s Metro Ethernet Application</td>
</tr>
<tr>
<td>Negev</td>
<td>One Fabric Card and Two Line Card Reference Designs with up to 100 Gbps Bandwidth Per Line Card</td>
</tr>
<tr>
<td>Paran</td>
<td>1.28 Tbps/1.92 Tbps Non-Blocking Switch Reference Design</td>
</tr>
</tbody>
</table>
## Switching (cont.)

### Enterprise 10-Gigabit Ethernet
- **BCM56511**: 4-Port 10-GbE/HiGig+™ Multilayer Switch
- **BCM56520**: 108 Gbps Integrated Ethernet Multilayer Switch
- **BCM56624**: 48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion
- **BCM56820**: 24-Port 10-GbE and 4-Port Multilayer Gigabit Ethernet Switch
- **BCM56821**: 12-Port 10-GbE and 8-Port HiGig™ and 4-Port GbE Multilayer Switch
- **BCM56840**: 640 Gbps High Density 10/40-GbE/HiGig2™ StrataXGS® Series Ethernet Switch Series with Integrated 10G Serial PHY

### Fast Ethernet
- **BCM56112**: 24-Port FE and 2-Port Gigabit Ethernet Switch with Two 10-GbE/HiGig+™ Ports

### Gigabit Ethernet
- **BCM56214**: 24 GbE Ports + Two 1-GbE Uplink Ports + Two 2.5-GbE Stacking Ports
- **BCM56216**: 16 GbE Ports + Two 1-GbE Uplink Ports + Two 2.5-GbE Stacking Ports
- **BCM56218**: 48 GbE Ports + Two 1-GbE Uplink Ports + Two 2.5-GbE Stacking Ports
- **BCM56224**: 24-Port Gigabit Ethernet Switch with Four 2.5-GbE/HiGig+™ Ports
- **BCM56226**: 16-Port Gigabit Ethernet Switch with Four 2.5-GbE/HiGig+™ Ports
- **BCM56228**: 8-Port Gigabit Ethernet Switch with Four 2.5-GbE/HiGig+™ Ports
- **BCM56510**: 24-Port GbE Multilayer Switch
- **BCM56512**: 24-Port GbE Multilayer Switch with Two 10-GbE/HiGig+™ Ports
- **BCM56513**: 24-Port GbE Multilayer Switch with Three 10-GbE/HiGig+™ Ports
- **BCM56514**: 24-Port GbE Multilayer Switch with Four 10-GbE/HiGig+™ Ports
- **BCM56534**: 24-Port GbE Multilayer Switch with Four 10-GbE/HiGig2™ Ports
- **BCM56538**: 48-Port GbE Multilayer Switch with Four 10-GbE/HiGig2™ Ports
- **BCM56624**: 48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion
- **BCM56634**: 48-Port GbE with Four 10-GbE/HiGig2™ Ports Ethernet Multilayer Switch with Table Expansion

### StrataXGS® Fabrics
- **BCM56720**: 16-Port 256 Gbps HiGig™/HiGig2™ Switch Fabric

### Wireless LAN
- **BCM56520**: 108 Gbps Integrated Ethernet Multilayer 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

### EPON Solutions

#### Optical Line Terminals
- **TK3401**: Multirate 1 or 2 Gbps EPON Intelligent PON Node (IPN) Controller
- **TK3721**: 1 Gbps MAC Controller for EPON Optical Line Terminals
- **TK3723**: Dual TURBO-EPON® (1 or 2 Gbps) Optical Line Terminal SoC
Switching (cont.)

**EPON Solutions (cont.)**

**Optical Network Units**

- **BCM55030** 10 Gbps EPON Optical Network Unit SoC
- **TK3713** EPON Optical Network Unit (ONU) SoC
- **TK3714** TURBO-EPON® (1 or 2 Gbps) Optical Network Unit SoC
- **TK3715** TURBO-EPON® (1 or 2 Gbps) Optical Network Unit SoC with Support for China’s Interoperability Standard

**Home and Small Business**

**Fast Ethernet**

- **BCM53001** Single-Core 32-bit 400 MHz MIPS® Processor with DDR2, PCI Express®, and RGMII
- **BCM53003** Single-Core 32-bit 600 MHz MIPS® Processor with DDR2, PCI Express®, RGMII, and SGMII
- **BCM53101** Integrated 7 FE Managed Switch
- **BCM53202** Integrated 8 FE + 2-GbE Managed Switch
- **BCM53212** Integrated 16 FE + 2-GbE Managed Switch
- **BCM53242** Integrated 24 FE + 2-GbE Managed Switch
- **BCM5324M** Integrated 24 FE + 2-GbE Managed Switch
- **BCM5325E** Integrated 10/100BASE-T/X 5/6-Port Managed Switch
- **BCM5325F** Integrated 10/100BASE-T/X 5/6-Port Managed Switch
- **BCM5325M** Integrated 10/100BASE-T/X 5/6-Port Managed Switch
- **BCM5328M** Integrated 10/100BASE-T/X 9-Port Managed Switch
- **BCM5328x** Managed Switch with 8/16/24 FE Ports + 2 GbE/4 GbE/2
- **Family** GbE + 2.5G SerDes
- **BCM5348** Single-Chip L2+ Managed Switch with 48 10/100 Ports + Four GbE Ports

**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
- **BCM53322** 8-Port GbE + 4-Port GbE Highly Integrated Multilayer Switch SoC
- **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
- **BCM53718** 48-GbE Port + Optional 2-GbE 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** 5-GbE Port Switch with Integrated SerDes
- **BCM5388** 8-GbE Port Switch with Integrated GbE Copper PHY
- **BCM5389** 8-GbE Port Switch with Integrated SerDes
- **BCM5396** 16-GbE Port Switch with Integrated SerDes

**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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