

50G-800G Optical Module PHY Product Selection Guide

Broadcom's Optical Module PHY portfolio spans three technology nodes - 7nm, 16nm and 20nm, with data rates from 50Gbps to 800Gbps. Comprising four platforms, Berlinetta, Centenario, Estoque and Portofino, Broadcom's DSP PAM4 portfolio covers 50G, 100G, 200G, 400G, and 800G PMD's respectively, and are uniquely positioned to meet the "Cost per GB" and "Power per GB" requirements of our hyperscale datacenter, enterprise and telecom customers.

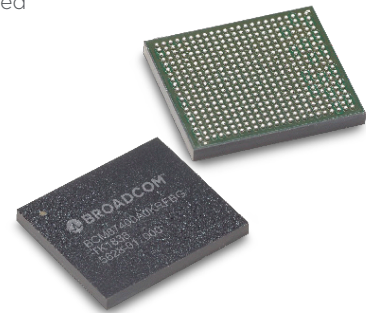
BCM87800/2

- Hyperscale data center deployments inside 800G QSFP-DD/OSFP optical modules
- 800G DR8 & 2x400G DR4/FR4/LR4
- 7nm Process Node
- Optional Bare Die Sale; Co-packaged optical solutions
- Direct Drive, Non Direct Drive Options
- Sampling



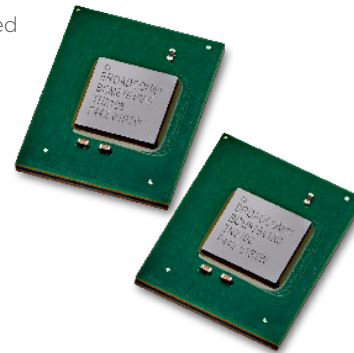
BCM87400/2

- Hyperscale data center deployments inside 400G QSFP-DD/OSFP optical modules
- 400G DR4/FR4/LR4
- 7nm Process Node
- Optional Bare Die Sale;
- Direct Drive, Non Direct Drive Options
- Production Released



BCM87540/541

- Hyperscale data center deployments inside 200G QSFP56 optical modules
- 200GbE AOC/SR4/FR4
- 7nm Process Node
- Direct Drive, Non Direct Drive Options
- Optional Bare Die Sale
- Production Released



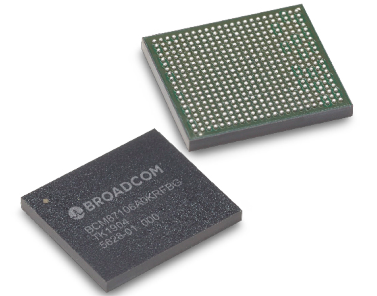
BCM87580

- Hyperscale data center and High Performance Computing deployments inside 400G QSFPDD optical modules
- 400GbE AOC/SR8/LR8
- 7nm Process Node
- Sampling



BCM87102/3/6

- Hyperscale data center deployments inside 100G QSFP28 optical modules and Telecom 100G SFP-DD optical modules
- 100G DR1/FR1/LR1
- 7nm Process Node
- Production Released



Part Number	Platform	Process Node	"Client Side (Data Rate/ch)"	"Line Side (Data Rate/ch)"	Configuration	Application	Module Form Factor
BCM87800	Portofino	7nm	100G	100G	8:8	2X400G FR4/ 800G DR8	QSFPDD, OSFP
BCM87804	Portofino	7nm	100G	100G	8:8	2X400G FR4/ 800G DR8	QSFPDD, OSFP
BCM87802 (DD)	Portofino	7nm	100G	100G	8:8	2X400G FR4/ 800G DR8	QSFPDD, OSFP
BCM87840	Portofino	7nm	100G	100G	4:4	400G SR4/FR4	QSFP112
BCM87842 (DD)	Portofino	7nm	100G	100G	4:4	400G SR4/FR4	QSFP112
BCM87400	Centenario	7nm	50G	100G	8:4	400G DR4/FR4/LR4	QSFPDD, OSFP
BCM87402 (DD)	Centenario	7nm	50G	100G	8:4	400G DR4/FR4/LR4	QSFPDD, OSFP
BCM87106	Centenario	7nm	25G/50G	100G	4:1/2:1	100G DR1/FR1/LR1	QSFP28
BCM87102 (DD)	Centenario	7nm	25G/50G	100G	4:1/2:1	100G DR1/FR1/LR1	QSFP28
BCM87103 (DD)	Centenario	7nm	25G/50G	100G	4:1/2:1	100G DR1/FR1/LR1	SFPDD/QSFP28
BCM87101 (DD)	Centenario	7nm	25G/50G	100G	4:1/2:1	100G DR1/FR1/LR1	SFPDD/QSFP28
BCM8710x	Centenario	7nm	100G	100G	1:1	100G DR1/FR1/LR1	SFP112
BCM87540	Estoque2	7nm	50G	50G	4:4	200G SR4/FR4	QSFP56
BCM87541 (DD)	Estoque2	7nm	50G	50G	4:4	200G SR4/FR4	QSFP56
BCM87580	Estoque2	7nm	50G	50G	8:8	400G SR8/LR8	QSFPDD, OSFP
BCM81123	Berlinetta2	16nm	25G/50G	50G	4:2/2:2	100G SR1.2/SR2	QSFP28
BCM81108	Berlinetta2	16nm	25G/50G	50G	2:1/1:1	50G FR/LR/ER	SFP56/QSFP28

High Speed Optical PHY Product Selection Guide

Broadest & Highest Performance Portfolio for Linecard Applications

BCM87360

- Application - Retimer/Cross-point
- Hyperscale data center & Service provider deployments
- 25G - 800G
- 7nm Process Node
- Sampling



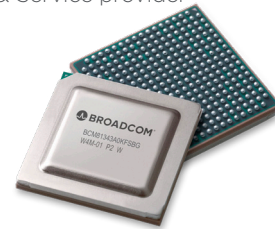
BCM87326

- Application - Retimer/Gearbox/Mux/Cross-point
- Hyperscale data center & Service provider deployments
- 10G - 400G
- 7nm Process Node
- Sampling



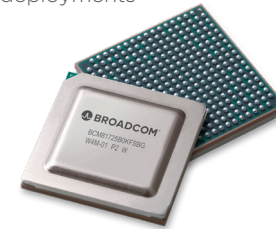
BCM81343

- Application - MACSec
- Hyperscale data center & Service provider deployments
- 10G - 400G
- 16nm Process Node
- Production Released



BCM81725

- Application - Mux & Gearboxing
- Hyperscale data center deployments
- 10G - 400G
- 16nm Process Node
- Product Released



BCM81385

- Application - 1588 PTP, Class-C
- Service Provider deployments
- 10G - 400G
- 16nm Process Node
- Product Released



Part Number	Application	Process Node	"System Side (Data Rate/ch)"	"Line Side (Data Rate/ch)"	Retimer	Gearbox	Mux, Crosspoint	MACSec	1588	Primary Form Factor	# of 800G Ports Supported	# of 400G Ports Supported	# of 200G Ports Supported	# of 100G Ports Supported	# of 10G Ports Supported
BCM87360	Frontpanel	7nm	PAM4 (106G)	PAM4 (106G)	Yes	No	Yes	No	No	QSFP-112, SFP-112	1	2	4	8	NA
BCM87326	Frontpanel	7nm	PAM4 (50G)	PAM4 (50G)	Yes	Yes	Yes	No	No	QSFP-DD, SFP-56	NA	2	4	8	16
BCM87728	Frontpanel	7nm	PAM4 (50G)	NRZ (25G)	Yes	Yes	No	No	No	QSFP-28	NA	1	2	4	16
BCM81724	Frontpanel	16nm	PAM4 (50G)	NRZ (25G)	Yes	Yes	No	No	No	QSFP-28	NA	1	2	4	16
BCM81725	Frontpanel	16nm	PAM4 (50G)	PAM4 (50G)	Yes	No	Yes	No	No	QSFP-DD	NA	2	4	8	16
BCM81356	Frontpanel	16nm	PAM4 (50G)	PAM4 (50G)	Yes	Yes	Yes	No	No	QSFP-DD, SFP-56	NA	2	4	8	16
BCM81358	Frontpanel	16nm	PAM4 (50G)	PAM4 (50G)	Yes	Yes	Yes	No	No	QSFP-DD, SFP-56	NA	1	2	4	8
BCM81338	Backplane	16nm	PAM4 (50G)	PAM4 (50G)	Yes	No	Yes	No	No	Backplane	NA	1	2	4	8
BCM81381	Frontpanel	16nm	NRZ (25G)	NRZ (25G)	Yes	No	Yes	No	No	QSFP-28, SFP-28	NA	NA	NA	2	8
BCM81384	Frontpanel	16nm	NRZ (25G)	NRZ (25G)	Yes	Yes	Yes	No	Yes	QSFP-28	NA	NA	NA	4	16
BCM81385	Frontpanel	16nm	NRZ (25G)	NRZ (25G)	Yes	Yes	Yes	No	Yes	QSFP-28	NA	NA	NA	2	8
BCM81343	Frontpanel	16nm	PAM4 (50G), NRZ (25G)	PAM4 (50G)	Yes	Yes	Yes	Yes	Yes	QSFP-DD, SFP-56	NA	2	2	8	16
BCM81394	Frontpanel	16nm	PAM4 (50G), NRZ (25G)	NRZ (25G)	Yes	Yes	Yes	Yes	Yes	QSFP-28	NA	NA	NA	4	16
BCM81392	Frontpanel	16nm	NRZ (25G)	NRZ (25G)	Yes	Yes	Yes	Yes	Yes	QSFP-28	NA	NA	NA	2	8
BCM82381	Frontpanel	28nm	NRZ (25G)	NRZ (25G)	Yes	No	Yes	No	No	QSFP-28, SFP-28	NA	NA	NA	2	8
BCM82380	Frontpanel	28nm	NRZ (25G)	NRZ (25G)	Yes	No	Yes	No	No	QSFP-28, SFP-28	NA	NA	NA	1	4
BCM82072	Backplane	28nm	NRZ (25G)	NRZ (25G)	Yes	No	Yes	No	No	Backplane	NA	NA	NA	2	8
BCM82209	Backplane	28nm	NRZ (25G)	NRZ (25G)	Yes (Simplex)	No	Yes	No	No	Backplane	NA	NA	NA	2	8
BCM82012	Backplane	28nm	NRZ (25G)	NRZ (25G)	Yes (Simplex)	No	Yes	No	No	Backplane	NA	NA	NA	3	12
BCM82391	Frontpanel	28nm	NRZ (25G)	NRZ (25G)	Yes	Yes	Yes	Yes	No	QSFP-28	NA	NA	NA	2	8
BCM82398	Frontpanel	28nm	NRZ (25G)	NRZ (25G)	Yes	Yes	Yes	Yes	Yes	QSFP-28	NA	NA	NA	2	8
BCM82328	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	No	No	No	No	QSFP+, SFP+	NA	NA	NA	NA	8
BCM82322	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	No	No	No	No	QSFP+, SFP+	NA	NA	NA	NA	12
BCM82752	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	No	Yes	No	Yes	SFP+	NA	NA	NA	NA	2
BCM82758	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	No	Yes	No	Yes	SFP+	NA	NA	NA	NA	4
BCM82780	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	No	Yes	No	Yes	SFP+	NA	NA	NA	NA	8
BCM82759	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	Yes	Yes	Yes	Yes	SFP+	NA	NA	NA	NA	2
BCM82756	Frontpanel	28nm	NRZ (10G)	NRZ (10G)	Yes	Yes	Yes	Yes	Yes	SFP+	NA	NA	NA	NA	4
BCM84324	Frontpanel	40nm	NRZ (10G)	NRZ (10G)	Yes	No	No	No	No	QSFP+, SFP+	NA	NA	NA	NA	4
BCM84328	Frontpanel	40nm	NRZ (10G)	NRZ (10G)	Yes	No	No	No	No	QSFP+, SFP+	NA	NA	NA	NA	8