









MMP PHY PRODUCT SELECTOR GUIDE

Mass Market PHY Solutions

	BCM5221	BCM5241	BCM54214E	BCM54216E	BCM52681E	BCM5248U	BCM5248X	B50212E	BCM54214E	BCM54216E	BCM54811	BCM54811S
FE/GPHY	MII RMII	MII	MII	MII	S3MII	S3MII SMII	S3MII SMII	RGMI	GMI RGMII	RGMI SGMI	RGMI	RGMI SGMI
Media Interface												
Port speed	FE	FE	FE	FE	FE	FE	FE	GPHY	GPHY	GPHY	GPHY	GPHY
Copper ports	1	1	1	1	8	8	8	1	1	1	1	1
Fiber ports	1	1	0	0	8	0	8	0	0	0	0	1
PoE Interface												
GMI	0	0	0	0	0	0	0	0	1	1	0	0
QSGMI	0	0	0	0	0	0	0	0	0	0	0	0
SGMI	0	0	0	0	0	0	0	0	0	0	0	1
RGMI	0	0	0	0	0	0	0	1	1	1	1	1
MII	1	1	1	1	0	0	0	0	0	0	1	1
RMII	1	0	0	0	0	0	0	0	0	0	–	–
S3MII			0	0	8	8	8	0	0	0	–	–
SMII			0	0	0	8	8	0	0	0	–	–
XAUI			0	0	0	0	0	0	0	0	–	–
XFI			0	0	0	0	0	0	0	0	–	–
Features												
Process	220 nm	180 nm	40 nm	40 nm	65 nm	180 nm	180 nm	40 nm	40 nm	40 nm	65 nm	65 nm
Package size (in mm)	12 × 12, 8 × 8, 7 × 7	5 × 5	10 × 10	10 × 10	21 × 21	23 × 17	17 × 17	7 × 7	10 × 10	9 × 9	7 × 7	9 × 9
Package type	64 LQFP, 64 FBGA, 48 QFN	32 MLP	68 QFN	68 QFN	400 FBGA	128 MQFP	256 FBGA	40 QFN	68 QFN	64 QFN	48 MLP	100 BGA
Power rails	2.5V/3.3V	2.5V/3.3V	1.0V/3.3V	1.0V/3.3V	1.3V/3.3V	1.8V/3.3V	1.8V/3.3V	1.0V/3.3V	1.0V/3.3V	1.0V/3.3V	1.2V/3.3V	1.2V/3.3V
I-Temp	√	√	√	√	√	√	√	√	√	√	√	√
On-chip Regulator	–	–	√	√	–	–	–	√	√	√	√	√
BroadR-Reach	–	–	–	–	–	–	–	–	–	–	√	√
Synch Ethernet	–	–	√	√	√	–	–	–	√	√	√	√
IEEE 1588v2	–	–										
												
Y.1731 DM	–	–	√	–	–	–	–	–	√	–	–	–
Energy Efficient Ethernet (EEE)	–	–										
												
AutogrEEEn®(+)	–	–	√	√	–	–	–	–	√	√	–	–

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BCM54811 BroadR-Reach[®] Transceiver



The Broadcom BCM54811 is a single fully integrated BroadR-Reach[®] and triple-speed 10/100/1000BASE-T Gigabit Ethernet transceiver. The BCM54811 provides support for and exceeds IEEE noise cancellation and transmission jitter specifications for a host of physical layer functions such as 1000BASE-T, 100BASE-TX, and 10BASE-T on standard Category 3, 4, and 5 UTP cable. Additionally, BroadR-Reach functionality enables the BCM54811 to extend cable reach to 300m at 100 Mbps or 500m at 10 Mbps modes (depending on cable type, individual parametrics, and number of pairs used). The BCM54811S supports both SGMII and RGMII MAC interface.

BCM954811_MC Evaluation Board



The BCM954811_MC board was specifically designed to evaluate the BroadR-Reach[®] capabilities of the BCM54811 device.

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MMP_PHY-PSG200-R • November 2016

