



Pulse Internal Antennas for ISM, WiFi, GNSS, 3G/4G (LTE) Applications

Rev H.02 (JAN 2018)

| App. | Type | Pulse Part number | RF Performance | | | | | | ME requirement | | | | Note |
|----------------------------|----------------------------|--|---------------------------|--------------|---------------------|----------------|-------------------|------------------|-------------------------|--------------------------------------|-------------------------------------|----------------------------|--|
| | | | Operating Frequency (MHz) | RL Min. (dB) | Peak Gain (dBi) | | Efficiency (%) | | Antenna DIM. (LxWxH,mm) | Cable Length from edge/ Diameter, mm | Connector Type | Cable Alignment w/ Antenna | |
| | | | | | Max. | Min. | Max. | Min. | | | | | |
| ISM | FPC | W3312B0100 | 860-930 | -8 | 2.3 | - | 50 (Avg.) | | 75 x 15 | L:100 / D:1.13 | U.FL compatible | PERP | Alternative: W3502, W3538, W3501 |
| ISM + WiFi Combo | PCB | W3332B0150 | 863-928 | -5 | 0.2 | - | 55 (Avg.) | | 82 x 15 x 0.56 | L:150 / D:1.13 | U.FL compatible | PERP | ISM 868/915 and 2.4GHz WiFi (two feed cables). Isolation: <-11dB. |
| | | | 2400-2500 | -10 | 4.1 | - | 64 (Avg.) | | | | | | |
| GNSS | FPC | W3908B0100 | 1560-1610 | -12 | 0.3 | -0.2 | 36 | 33 | 20 x 26.80 x 0.1 | L:93 / D:1.13 | U.FL compatible | PAR. | |
| WiFi, BT, Zigbee | PCB | W3525B039 | 2400-2483.5 | -10 | 2 | 0.6 | 65 | 55 | 48 x 11 x 0.8 | L:100 / D:1.13 | U.FL compatible | PERP | w/ adhesive: W3525BTWxxx |
| | | W3593B0100 | 4900-5850 | -10 | 2 | 0.5 | 70 | 50 | 45 x 7 x 0.8 | L:100 / D:1.13 | U.FL compatible | PERP | No adhesive |
| | | W3513B0212 | 2400-2500; 4900-5850 | -13; -10 | 2;2.7 | 1.4; 0.4 | 70; 67 | 68; 52 | 16 x 70 x 0.9 | L:212 / D:1.13 | U.FL compatible | PAR. | No adhesive |
| | FPC | W3919B0050 | 4900-5925 | -10 | 3.7 | 2.5 | 72 | 50 | 15.9 x 7.6 x 0.45 | L: 50 / D: 1.13 | U.FL compatible | PERP | W3919XXXX (for custom cable length) |
| | | W3921B0100 | 2400-2500 | -13 | 1.8 | 1 | 57 | 50 | 33 x 7.7 x 0.1 | L: 100 / D:1.13 | U.FL compatible | PERP | W3921XXXX (for custom cable length) |
| | | W3920B0050 | 4900-5925 | -10 | 3.7 | 2.2 | 75 | 55 | 12.5 x 7.6 x 0.15 | L: 50 / D: 1.13 | U.FL compatible | PERP | W3920XXXX (for custom cable length) |
| | | W3315BA0100 (W3315B0100MHF1) | 2400-2500 | -10 | 2 | 1 | 75 | 65 | 45 x 6 x 0.1 | L:100 / D:1.13 | U.FL compatible | PAR. | W3315B0100 (MHF-A13 or equivalent) W3315BC0100 (MHFIII 20367 or equivalent) W3315BD0100 (MHF4 or equivalent) |
| | | | 4900-5875 | -10 | 5.5 | 4 | 85 | 62 | | | | | |
| | | W3334B0150 | 2400-2500 | -10 | 4.8 | 3.4 | 53 | 49 | 14 x 5 x 0.1 | L:150 / D:1.13 | U.FL compatible | PAR. | W3334XXXX (for custom cable length) |
| | | | 4900-5900 | -10 | 5.5 | 3.5 | 90 | 65 | | | | | |
| | | W3917B0050 | 2400-2500 | -10 | 2.7 | 1.8 | 62 | 53 | 42.6 x 8.6 x 0.15 | L:50 / D:1.13 | U.FL compatible | PAR. | W3917XXXX (for custom cable length) |
| | | | 4900-5925 | -10 | 4.9 | 3 | 89 | 69 | | | | | |
| W3918B0050 | 2400-2500 | -10 | 3.8 | 3.4 | 73 | 60 | 35.2 x 8.5 x 0.15 | L:50 / D:1.13 | U.FL compatible | PERP | W3918XXXX (for custom cable length) | | |
| | 4900-5925 | -10 | 5.3 | 3.3 | 90 | 70 | | | | | | | |
| MIMO WIFI | FPC | W6102B0100 | 2400-2500 | -10 | isolation: -20 | 2 (Avg.) | 45 (Avg.) | | 50 x 20 x 0.1 | L:100 / D:1.13 | U.FL compatible | PERP | Two cables |
| | | | 4900-5900 | -10 | isolation: -20 | 5 (Avg.) | 75 (Avg.) | | | | | | |
| | | W6103B0100 | 2400-2500 | -10 | isolation: -15 | 4.5 (Avg.) | 70 (Avg.) | | 80 x 20 x 0.1 | L:100 / D:1.13 | U.FL compatible | PERP | Three cables |
| | | | 4900-5900 | -10 | isolation: -15 | 5 (Avg.) | 75 (Avg.) | | | | | | |
| 3G | PCB | W3502B0020 | 824-960; 1710-1990 | -6; -4 | 2; 2.4 | 0.8; -0.4 | 78; 80 | 55; 70 | 43 x 17 x 0.5 | L:20 / D:1.13 | U.FL compatible | PERP | 80mm ground plane with 5mm gap |
| | | W3538B0200 | 824-960; 1710-2170 | -6; -6 | - | - | 57; 71 | 41; 50 | 40 x 15 x 0.7 | L:200 / D:1.13 | U.FL compatible | PERP | W3538XXXX |
| | FPC | W3501B0140 | 824-960; 1710-1990 | -7; -8 | 1.5; 4.2 | 0.8; 2.8 | 61; 71 | 50; 50 | 87 x 25 x 0.2 | L:140 / D:1.13 | U.FL compatible | PERP | W/ adhesive: W3571B0140. |
| 3G + GNSS Combo | FPC | W3915 | 880-960; 1710-2170 | -6; -8 | 3; 3.5 | 1; 2.8 | 73; 87 | 51; 75 | 74 x 19 x 0.2 | L:100/ D:1.13 | U.FL compatible | PERP | Two cables |
| 1565-1605 | | | -6 | 2 | 0.5 | 68 | 55 | | | | | | |
| 4G (LTE) | | W3554B0140 | 698-960; 1710-2690 | -5; -8 | 1.5; 3.9 | -0.6; 1.9 | 75; 86 | 50; 65 | 120 x 30 x 0.2 | L:140 / D:1.13 | U.FL compatible | PERP | W/ adhesive: W3554B0140T |
| | W3907B0100 | 698-960; 1427-1610 | -8; -7 | 2.2; 1.8 | -0.5; 0 | 70; 65 | 50;50 | 115.7 x 20 x 0.1 | L:100 / D:1.13 | U.FL compatible | PERP | | |
| | | 1695-2700; 3400-3600 | -7; -10 | 3.5; 4 | 1; 2.5 | 72; 80 | 52; 78 | | | | | | |
| 4G + GNSS Combo | FPC | W3906B0100 | 698-960; 1427-1610 | -13; -8 | 2.6; 2.2 | -0.6; 1.2 | 70; 60 | 50;50 | 120.4 x 26.8 x 0.1 | L:100 / D:1.13 | U.FL compatible | PERP | Two cables |
| | | | 1695-2700; 3400-3600 | -7; -10 | 3.6; 4 | 1.8; 3.5 | 76; 85 | 52; 80 | | | | | |
| | | | 1550-1625 | -10 | 2 | 0.5 | 37 | 30 | | | | | |
| MIMO 4G (LTE) | FPC | W6112B0100 | 698-960; 1428-2170 | -6; -7.5 | isolation: -10; -15 | 4.3; 3.8 (Avg) | 55; 68 (Avg.) | | 224 x 20 x 0.1 | L:100 / D:1.13 | U.FL compatible | PERP | Two cables |
| | | | 2300-3600 | -10 | isolation: -15 | 4 (Avg.) | 65 (Avg.) | | | | | | |
| MIMO 4G + GNSS Combo | FPC | W6113B0100 | 698-960; 1428-2200 | -6; -7.5 | isolation: -10; -13 | 2.9; 1.7; 3.4 | 55; 60; 65 (Avg.) | | 224 x 20 x 0.1 | L:100 / D:1.13 | U.FL compatible | PERP | Three cables |
| | | | 2300-3600 | -7.5 | isolation: -13 | 3.8; 4.2 | 70; 65 (Avg.) | | | | | | |
| | | | 1570-1610 | -10 | isolation: -13 | 0.8 | 35 (Avg.) | | | | | | |

Note: 1. FPC antenna is measured on the 2mm ABS/PC plate. 2. Default Connector: Equivalent of I-PEX MHF 20278-11R-13 or compatible with U.FL connector. 3. Default Receptacle: Equivalent of I-PEX MHF 20279-001E (3pad), 20441-001E-01(4pad) or compatible with U.FL receptacles. 4. Cable length is a distance between the edge of PCB and the center of connector. 6. Contact sales for custom cable lengths and connector type. Email: antennas.us@pulseelectronics.com. Phone: 800-ANTENNA (268-3662) or 360-944-7551.