



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

Rev H.04 (April 2019)

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
		W3513	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
		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)
	FPC	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		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
			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	617-960; 1710-2690; 3400-3900	-6	1.4; 2.3; 2	-1.1; 5; 2	72; 77; 75	48; 53; 54	115.8 x 30.4 x 0.1	L: 100/ D:1.13	U.FL compatible	PERP	Two cables
			698-960; 1427-1610	-13; -8	2.6; 2.2	-0.6; 1.2	70; 60	50; 50					
			1695-2700; 3400-3600	-7; -10	3.6; 4	1.8; 3.5	76; 85	52; 80					
MIMO 4G (LTE)		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		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. Cable 1 : LTE Main; Cable 2:GNSS; Cable 3: LTE MIMO
			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.