



Pulse Embedded (SMT) Antennas for ISM (315MHz, 433MHz, 915MHz and 868MHz) Applications

Rev H.03 (Feb. 2018)

App.	Type	Pulse Part number	RF Performance						ME requirement			Note	Availability
			Frequency range (MHz)	RL Min. (dB)	Peak Gain (dBi)		Efficiency (%)		Antenna DIM. (LxWxH,mm)	GC-area (L x W,mm)	Evaluation Board Size (L x W,mm)		
					Peak	Band edges	Peak	Band edges					
868MHz (867MHz-870MHz)	Ceramic chip	W3000	868-870	-15	-1.4	-1.5	30	29	7 x 1.6 x 1.6	20 x 9.50	40 x 20	Top center, tuned by stripline on PCB	Stock
		W3013	868-870	-11	1.5	1.4	65	64	10 x 3.2 x 4.0	10.80 x 8.25	80 x 37	Center edge	Stock
		W3016	868-870	-19	-2.2	-2.5	25	23	10 x 3.2 x 4.0	11.50 x 7	25 x 25	Corner, Small GC-area and PCB	Stock
	Composite	W3329	860-870	-10	0.17	-	60	-	21.85 x 5 x 3	37.51 x 8.30	128.64 x 37.51	Top center, MSL (3)	Contact to sales
	Helical	W3117	869-894	-9	0	-1.3	56	40	12.4 x 8 x 2.5	8 x 40	100 x 40	Horizontal, Top center	Stock
		W3118A	869-894	-9	0	-1.4	52	38	2.5 x 8 x 8	6 x 11	100 x 40	Vertical, Corner	Stock
		W3139	860-880	-8	-2	-3.5	35	26	14 x 3 x 3.3	4.2 x 40	121 x 40	Small GC: Series 11nH + Shunt 9.1pF	Contact to sales
		-10	0.2	-1.1	60	45	9.5 x 40	Large GC: Series 20nH + Shunt 6.8pF					
915MHz (902MHz-928MHz)	Ceramic chip	W3012	902-928	-6	2	0.5	70	50	10 x 3.2 x 4	10.80 x 8.25	100 x 37	Center edge	Stock
		W3014	880-960	-7	-0.5	-1	45	40	10 x 3.2 x 1.5	40 x 16	96 x 40	Top center	Stock
	Helical	W3112A	902-928	-10	0.9	-0.3	67	50	2.5 x 8 x 8	6 x 11	100 x 40	Vertical, Corner	Stock
		W3113	902-928	-10	0.8	-0.3	66	51	12.4 x 8 x 2.5	8 x 40	100 x 40	Horizontal, Top center	Stock
		W3139	902-928	-8	-1.8	-2.8	35	28	14 x 3 x 3.3	4.2 x 40	121 x 40	Small GC: Series 9.5nH + Shunt 9.1pF	Contact to sales
		-10	0	-1.1	55	43	9.5 x 40	Large GC: Series 18nH + Shunt 5.1pF					
Dual 868/ 915 MHz	Helical	W3136	860-930	-7	2	1.0	68	50	29.5 x 8.76 x 8.78	9.5 x 40	121 x 40	Top center	Contact to sales
Combo 868/915MHz and 2.4GHz	Ceramic chip	W3320	863-928	-8	1.5	0.8	67	55	10 x 3.2 x 2	10.78 x 9.5	120 x 50	Center edge, Dual feed	stock
			2400-2500	-6	3.4	1.4	61	45		4.65 x 3.95			
	composite	W3330	844-928	-6	0.9	0.2	67	52	25.1 x 5 x 3	40 x 8.65	128.64 x 40	Top Center, Dual feed	Stock
			2400-2500	-8	2.5	1.8	66	60					
	Direct PCB	W3331	863-928	-6	1.7	0.9	64	53	45 x 10 x 0.8	45 x 4.5	119 x 102	Corner, Small GC-area and PCB, Dual feeds	Stock
			2400-2500	-12	4	1.5	85	69					
Direct PCB	W3333	863-928	-8	2.4	1.8	75	-	40 x 15 x 0.8	40 x 4.5	119 x 102	Corner, Small GC-area and PCB, Dual feeds	Stock	
		2400-2500	-12	4.5	3.0	85	66						
433MHz	Ceramic chip	W3015L	433 +/- 1	-10	-2.5	-	35	-	10 x 3.2 x 4.0	10.80 x 14	200 x 37	Center edge	Contact to sales
	Helical	W3127	433-435	-15	-2.9	-	-	-	35.35 x 9.90	8 x 40	100 x 40	Top Center	Stock
315 MHz	Helical	W3126	315	-10	-5	-	-	-	35.35 x 9.90	8 x 40	100 x 40	Top Center	Stock
169 MHz	Helical	W3100	169MHz	-10	-4	-	55	-	91 x 9.8	-	95 x 45	coil on free space	Contact to sales

Note: 1. ISM application for 902MHz-928MHz band (center frequency 915MHz). 2. Applications from ECA chart for 862MHz-890MHz. (a) Alarms: 868-869.7MHz, (b) RFID: 865-868MHz, (c) Tracking, tracing, and data acquisition: 870-875.6MHz, and (d) Wireless audio/ multimedia: 863-865MHz. 3. "Stock" Stocked parts are typically available from Pulse distribution partners immediately. Please click 'Stock' to check antenna stock.