



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

Rev H.05 (APRIL 2019)

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	
		W3214	863-873	-20	1	-3	55	20	10 x 3.2 x 5	10.8 x 8.25	120 x 37	On Ground Solution. Center Edge	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)	Stock	
		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
	LDS		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	Stock	
W3401	868	-6	-1	-	40	-	59 x 6 x 15.5	-		65 x 65		SMD mount LDS antenna on carrier	Stock	
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	
		W3211	902-928	-10	1.5	-2	55	25	10 x 3.2 x 5	10.8 x 8.25	120 x 37	On Ground Solution. Center Edge	Stock	
	Ceramic Patch	W3215	902-928	-20	4.5	2.5	70	50	40 x 40 x 6	-	150 x 150		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	Stock			
W3139	902-928	-10	0	-1.1	55	43		9.5 x 40		9.5 x 40	Large GC: Series 18nH + Shunt 5.1pF	Stock		
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	Stock	
	Stamping	W3403	868-920	-10	-1.5	-	30	30	39 x 14 x 4.8	-	67.8 x 39.6	PIFA with traces on board.	Stock	
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	Stock	
	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.	Stock	

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.