



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

Rev H.04 (AUG 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 |
| | | 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 | Contact to sales |
| | 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 | | | | | |
| LDS | W3401 | 868 | -6 | -1 | - | 40 | - | 59 x 6 x 15.5 | - | 65 x 65 | SMD mount LDS antenna on carrier | Contact to sales | |
| 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 | Contact to sales |
| | Ceramic Patch | W3215 | 902-928 | -20 | 4.5 | 2.5 | 70 | 50 | 40 x 40 x 6 | - | 150 x 150 | | Contact to sales |
| | 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 |
| | 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. | 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: 868.6-869.7MHz, (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.