



## Pulse Internal Antennas for NFC applications

Rev H.04 (August 2018)

App.	Type	Pulse Part number	RF Performance								Mechanical requirement		Note	Availability	
			Frequency (MHz)	With matching network			Without matching network (Bare coil)					Package type			Dimension (in/mm)
				Reading distance EMV/Co (mm)	Reading Distance Grid Scan (Avg.,mm)	Impedance (ohm)	Self resonant frequency (MHz)	Inductance (uH)	Resistance (ohm)	Q-Factor					
NFC	Flex only	<a href="#">W7001</a>	13.56	40	33	50/80	100	0.9	1.55	49	A	0.98 x 0.98 x 0.005 (25 x 25 x 0.12)	Without a ground plane near antenna	<a href="#">Stock</a>	
	Flex with Ferrite & coaxial cable	<a href="#">W3509</a>	13.56	40	28	50/80	42	1.6	3.60	37.8	G	1.38 x 1.97 x 0.012 (35 x 50 x 0.30)	On ground plane solution, w/ 90mm 1.13OD coaxial cable and U.FL compatible connector	<a href="#">Stock</a>	
	Flex with Ferrite	<a href="#">W3579</a>	13.56	40	28	50/80	42	1.6	3.60	37.8	B	1.38 x 1.97 x 0.012 (35 x 50 x 0.30)	On ground plane ( metal objects like battery) solution	<a href="#">Stock</a>	
		<a href="#">W7013</a>	13.56	20	25	50/80	71.5	1.05	2.70	33	C	1.18 x 0.98 x 0.014 (30 x 25 x 0.36)		<a href="#">Stock</a>	
	Flex with twisted pair cable + connector	<a href="#">W7000</a>	13.56	-	36	50	75.5	1.27	2.20	49	F	1.69 x 1.34 x 0.005 (43x 34 x 0.11)	Adhesive tape under coil included	<a href="#">Stock</a>	
	Wire loop on plastic carrier	<a href="#">W7002</a>	13.56	40	35	50/80	89	0.65	0.95	57	D	3.72 x 2.24 x 0.14 (94.6 x 56.8 x 3.65)	Optimized for metal proximity within the device	<a href="#">Stock</a>	
WiFi and NFC combo	Trace on PCB	<a href="#">W5100</a>	13.56	-	-	50	65.9	0.95	-	44	E	1.57 x 1.57 x 0.05 (40 x 40 x 1.2)	Test setup over 80x80 mm metal GP	<a href="#">Stock</a>	
			2400-2483.5	RL Min. (dB): -8		Peak Gain in free space: -1dBi		Peak Gain on Metal: 1dBi		-					
		<a href="#">W5101</a>	13.56	-	-	50	57.6	1.13	-	46	E	1.77 x 1.77 x 0.05 (45 x 45 x 1.2)	Test setup over 80x80 mm metal GP	<a href="#">Stock</a>	
			2400-2483.5	RL Min. (dB): -8		Peak Gain in free space: 0.5dBi		Peak Gain on Metal: 1.5dBi		-					

NOTE: 1. Wire assembly option: Picoblade connector with wire. 2. "Stock" Stocked parts are typically available from Pulse distribution partners immediately.