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## Pulse Internal Antennas for NFC applications

Rev F (Aug 2016)

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 EMVCo (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 GND near antenna	Stocked
	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 (50 x 50 x 0.30)	On GND solution	Stocked
		<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)		Stocked
	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	Lead time
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	Stocked	
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	Lead time
			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	Lead time
			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.