

Slate 16 DVT1 (Cirque) NFC Antenna Report



2026/2/2

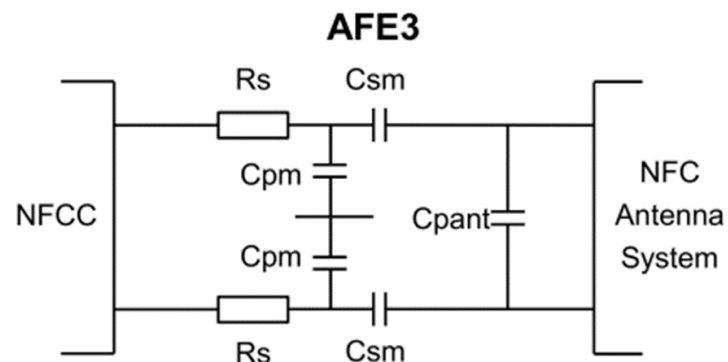


ANTENNA DETAILS: Slate 16 DVT1_X17 / Windows 11 Pro

Parameter	Item	Limit	Detail
Product Info	Vendor Name		SPEED
	Date		2026/2/2
	Sample Part Number		F-0W-FS-6235-001-00
Mechanical Design	Coil outer Size (mm*mm)	40 x 40 x 1.5 mm	36 x 36 mm
	Coil area (mm ²)	N/A	1296 mm ²
	Number of turns	3-6	4
	Inductance	<1.5uH	1.04 uH
Antenna PCB	Copper Thickness		0.5 oz
	Trace Width (mm)	>0.6mm	0.7 mm
	Trace Gap(mm)	>0.4mm	0.5 mm
Ferrite	magnetic permeability(u')	>120	130 ±20%
	magnetic loss(u'')	<3	3 ±20%
	Thickness (mm)		0.15 mm
	Ferrite size (mm*mm)		39.8 x 39.8 mm



Antenna Schematic with Component Designator:



Part	Used for Testing	Specification	Package	Value
R_s	> 63mW		0402	0.50 ohm
C_{p1}, C_{p2}	C0G/NP0 Dielectric 1~2%	50V	0402	330 pF
C_{s3}, C_{s4}	C0G/NP0 Dielectric 1~2%	50V	0402	180 pF
C_{s2}, C_{s5}	C0G/NP0 Dielectric 1~2%	50V	0402	15 pF
C_{s1}, C_{s6}	C0G/NP0 Dielectric 1~2%	50V	0402	1 pF
Ca1	C0G/NP0 Dielectric 1~2%	50V	0402	27 pF
Ca2	C0G/NP0 Dielectric 1~2%	50V	0402	3.9 pF



Part	Used for Testing	Specification	Package	Value
Rsm	> 63mW		0402	0.50 ohm
Cpm	C0G/NP0 Dielectric 1%~2%	50V	0402	330+56 pF
Csm	C0G/NP0 Dielectric 1%~2%	50V	0402	196 pF
Cpant	C0G/NP0 Dielectric 1%~2%	50V	0402	30.9 pF

NFC HW PERFORMANCE (Reduced Tx Gain = 48)

- Resonant Frequencies and other parameters

Parameter	Recommended	Value
R/W Resonant Frequency (MHz)	13.56MHz +/- 0.10MHz	13.55
CE Resonant Frequency (MHz)	15.00MHz +/- 1.00MHz	15.05
System Q	17 – 19 (+/- 2)	20.08

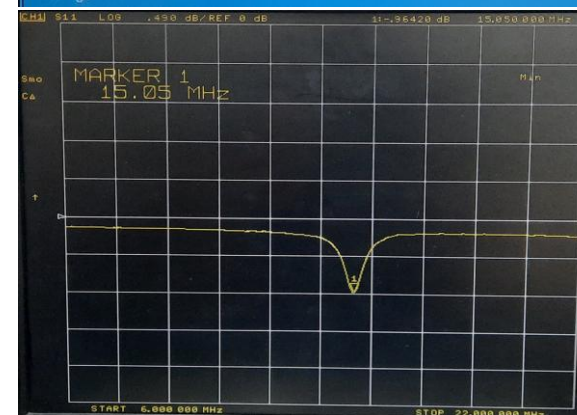
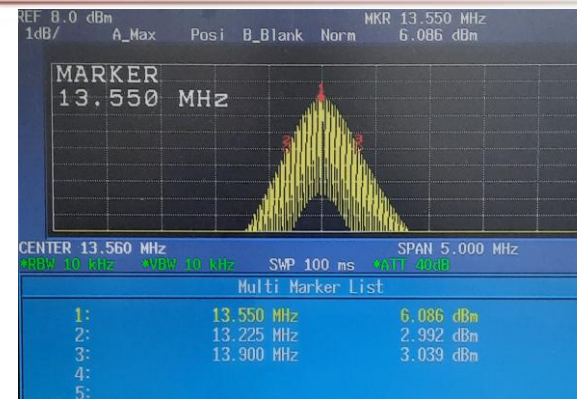
System Impedance as seen across TX1
and TX2 pins

8 +/- 1.00 Ω @13.56MHz

8.05

- Field Strength Measurements (A/m)

Distance from landing plane	On-axis to Antenna	90-deg to Antenna axis
0mm	2.75	2.74
5mm	2.68	2.77
10mm	2.01	2.14
15mm	1.46	1.52
20mm	1.03	1.08
25mm	0.74	0.77



CARD TESTS



Card ID	Function	Range	Pass/Fail	Technical Observations
NFC Forum T1T (Tech A)	NFC	42mm	Pass	Can be detected and read
NFC Forum T2T (Tech A)	NFC	58mm	Pass	Can be detected and read
NFC Forum T3T (Tech F)	NFC	49mm	Pass	Can be detected and read
NFC Forum T4T (Tech A)	NFC	29mm	Pass	Can be detected and read
NFC Forum T4T (Tech B)	RFID	15mm	Pass	Can be detected and read
NFC Forum T5V (Tech V)	NFC	78mm	Pass	Can be detected and read

- Slate 16 DVT1 (Cirque) 機台測試，目前檢測結果有符合規範。



THE END