Approved by
Checked by:
Issued by:

SPECIFICATION

Product: SAW Filter
Model: NDF550

NANJING ELECTRONIC DEVICES INSTITUTE
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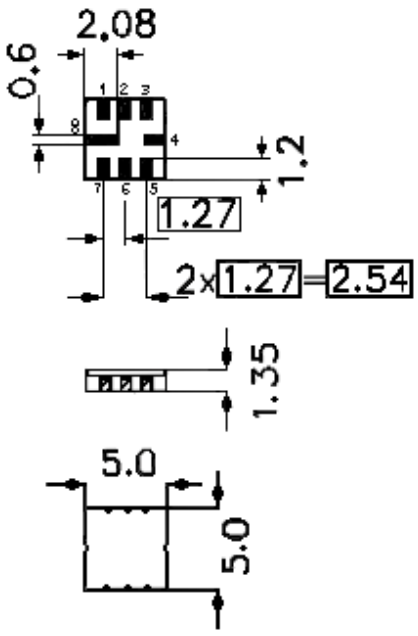
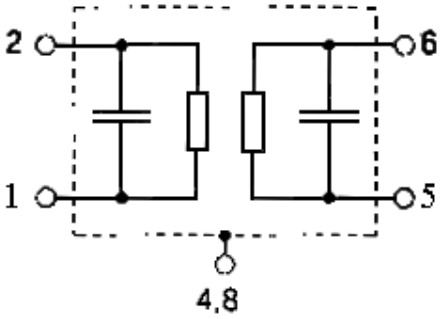
1.Package

Ceramic package QCC8C





Pin configuration

1	Input Ground
2	Input
5	Output Ground
6	Output
3,4,7,8	Case - Ground

Dimensions in mm, appr. weight 0.1g

2.Marking

NDF550

3.Performance

3.1 Absolute Maximum Ratings

Rating	Value	Units
Incident RF Power	+13	dBm
Case Temperature	-40 to +85	℃
DC Voltage Between Any Two Pins (Observe ESD Precautions)	±30	VDC

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3.2 Electrical Characteristics

Reference temperature: T_A = 25℃

Terminating source impedance: Z_S = 50Ω and matching network

Terminating load impedance: ZL = 50Ω and matching network

Characteristic		Sym.	Min.	Typ.	Max.	Units
Center Frequency (center frequency between 3dB points)		f_c	--	433.92	--	MHz
Insertion Loss		I_L	--	2.5	5.5	dB
3dB Passband		BW_3		±300	±400	kHz
Rejection	at f_c-21.4MHz(Image)		40	50	--	dB
	at f_c-10.7MHz(LO)		15	30	--	
	Ultimate		--	80	--	
Temperature	Operating Case Temperature	Tc	-35		+85	℃
	Turnover Temperature	To	15	25	40	
	Turnover Frequency	fo		fc		MHz
	Frequency Temperature Coefficient	FTC		0.032		ppm/℃
Frequency Aging Absolute Value during the First Year		|fA|		10		ppm/yr

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

Notes:

1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture which is connected to a 50 Ω test system with VSWR ≤ 1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, fc. Note that insertion loss and bandwidth are dependent on the impedance matching component values and quality.
2. The frequency fc is defined as the midpoint between the 3dB frequencies.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. The turnover temperature, TO, is the temperature of maximum (or turnover) frequency, fo. The nominal frequency at any case temperature, Tc, may be calculated from: f = fo [1 - FTC (To - Tc)2].
5. Frequency aging is the change in fc with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing significantly in subsequent years.
6. The design, manufacturing process, and specifications of this device are subject to change without notice.
7. One or more of the following U.S. Patents apply: 4,54,488, 4,616,197, and others pending.
8. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.

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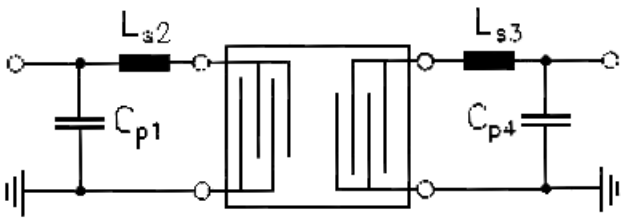
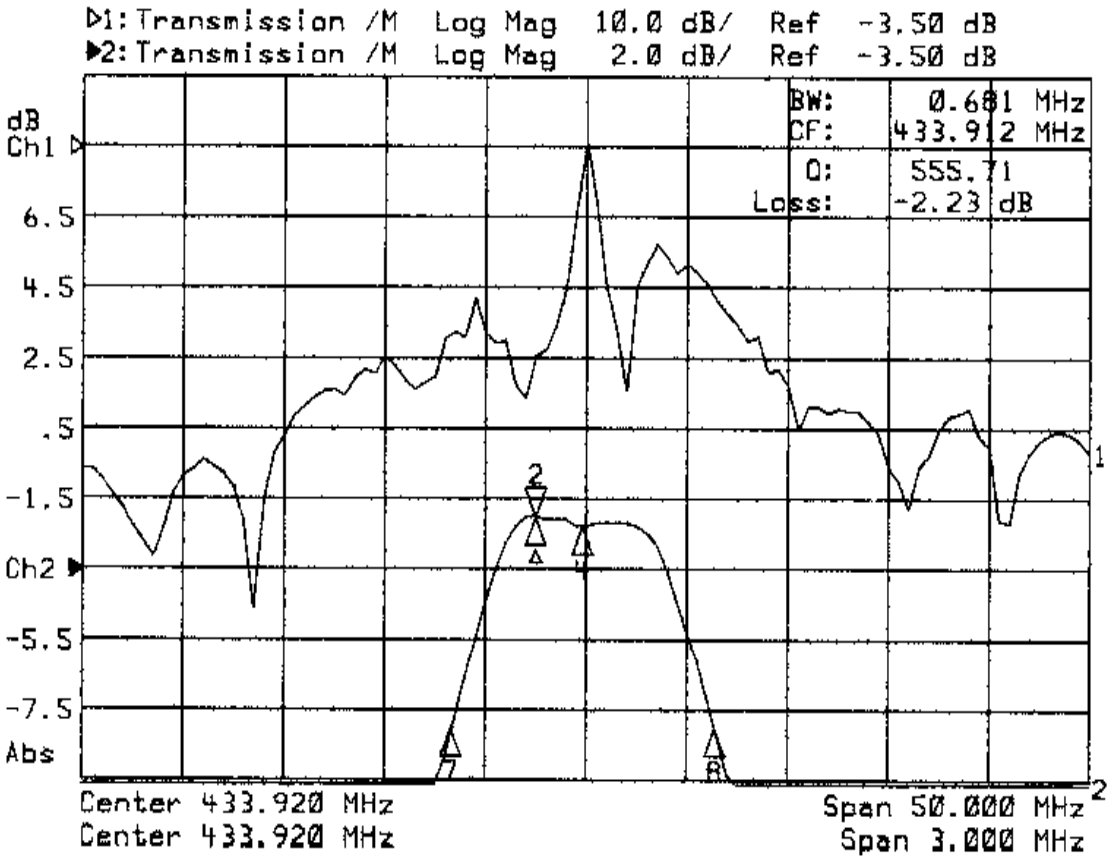
4. Matching network to 50 Ω

(element values depend on PCB layout and equivalent circuit)



Cp1 =10pF, Ls2 =43nH*, Ls3 =43nH*, Cp4 =10pF
Ls2 = Ls3 = 6 turns of 0.51mm insulated Copper, 2.5mm ID.

5. Typical Frequency Response



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