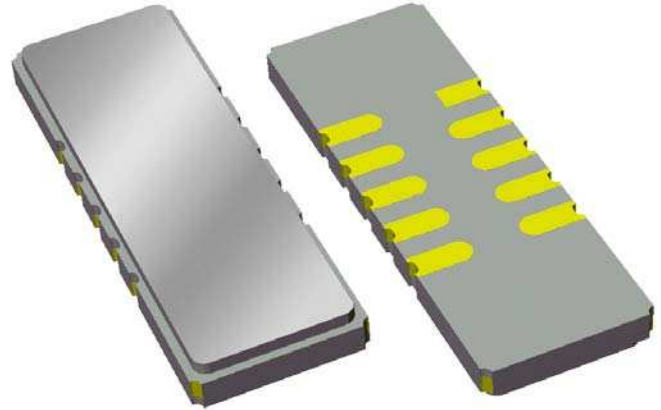


Data Sheet

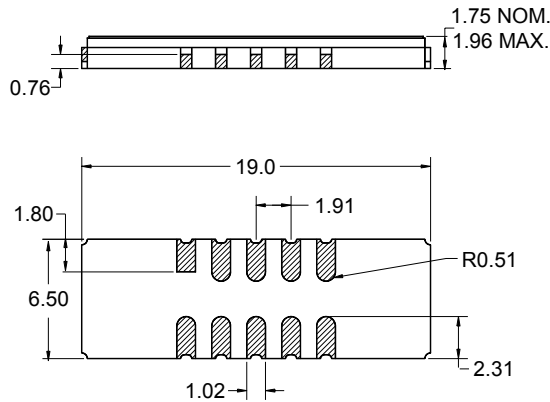
Features

- For CDMA basestation IF applications
- Usable bandwidth of 1.18 MHz
- Low loss
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



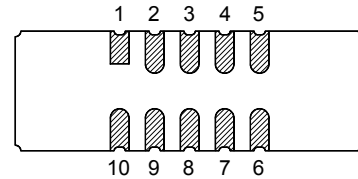
Package

Surface Mount 19.00 x 6.50 x 1.75 mm



Pin Configuration

Bottom View



Pin No.	Description
1	Input
5	Output return
6	Output
10	Input return
2,3,4	Case ground
7,8,9	Case ground

Dimensions shown are nominal in millimeters
 All tolerances are $\pm 0.15\text{mm}$ except overall
 length and width $+0.15\text{mm}/-0.10\text{mm}$

Body: Al_2O_3 ceramic
 Lid: Kovar, Ni plated
 Terminations: Au plating 0.5 - 1.0 μm ,
 over a 2 - 6 μm Ni plating

Data Sheet

Electrical Specifications ⁽¹⁾

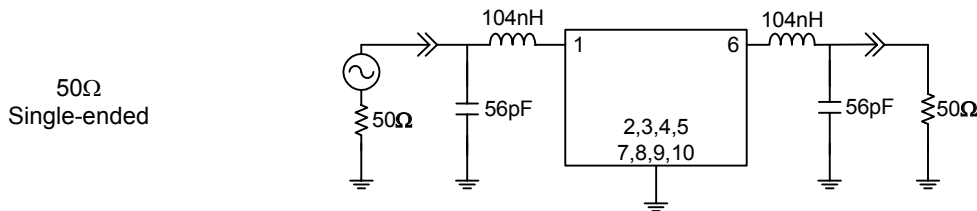
Operating Temperature Range: ⁽²⁾ 0 to +85 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency, f_0	-	141	-	MHz
Insertion Loss at 141MHz	-	11.7	14	dB
Amplitude Variation 140.475 - 141.525 MHz	-	0.67	1	dB p-p
Attenuation				
139.75	42.5	48	-	dB
140.41	-	1	3.75	dB
141.59	-	1	3.75	dB
142.25	42.5	48	-	dB
Phase Linearity 140.37 - 141.63 MHz	-	1.2	2	Deg RMS
Average Delay 140.37 - 141.63 MHz	2.34	2.44	2.54	μ sec
Group Delay Variation 140.475 - 141.525 MHz	-	145	300	nsec
Rejection				
79.75 - 139.75 MHz	42.5	>45	-	dB
142.25 - 202.25 MHz	42.5	>45	-	dB
Return Loss 140.475 - 141.525 MHz	10	13	-	dB
Source Impedance: ⁽⁴⁾	-	50	-	Ω
Load Impedance: ⁽⁴⁾	-	50	-	Ω

Notes:

1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. This is the optimum impedance in order to achieve the performance shown

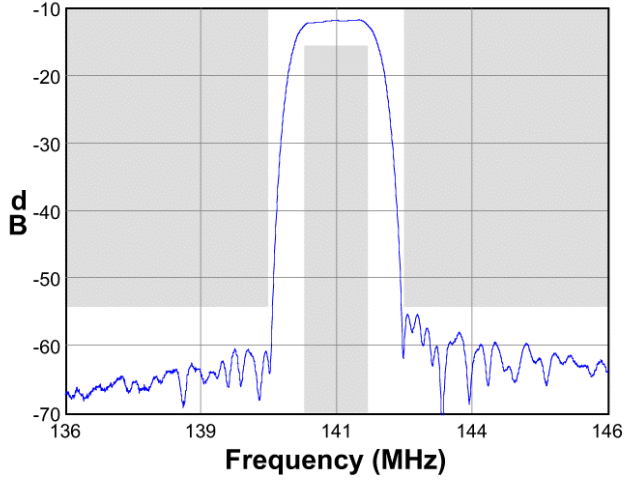
Manual Test Circuit:



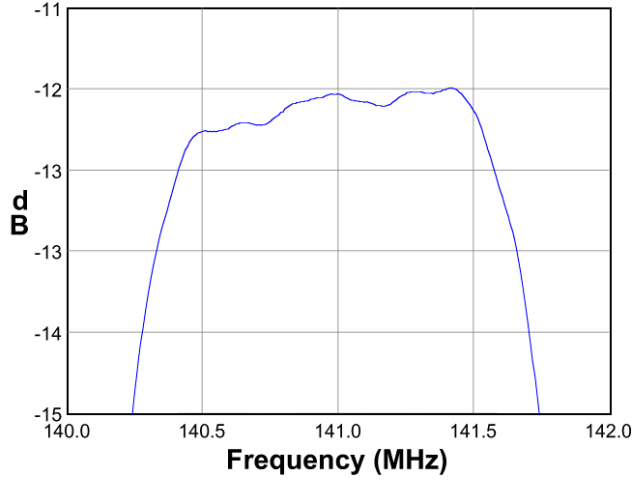
Data Sheet

Typical Performance (at +25°C)

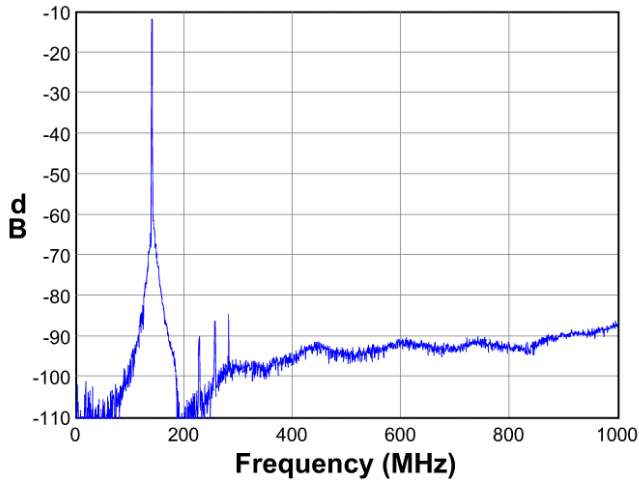
Frequency Response



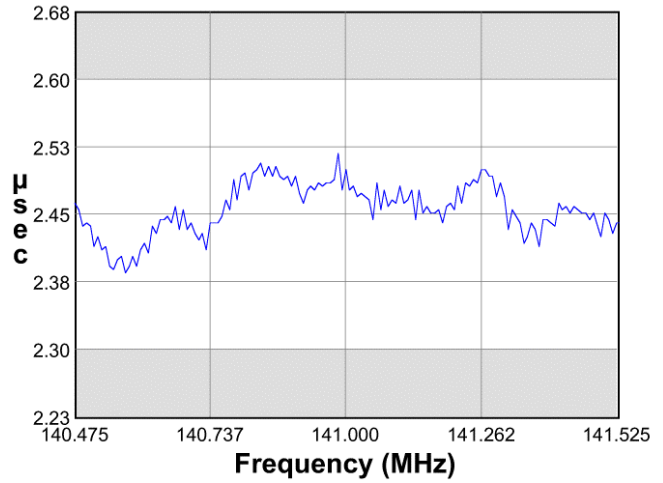
Passband Response



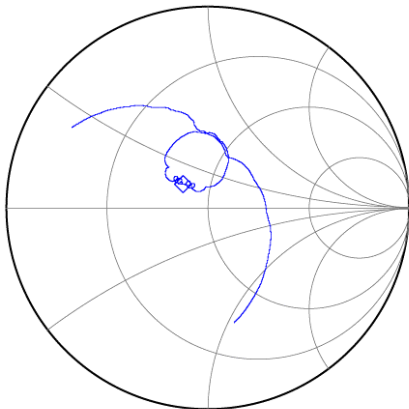
Wideband Response



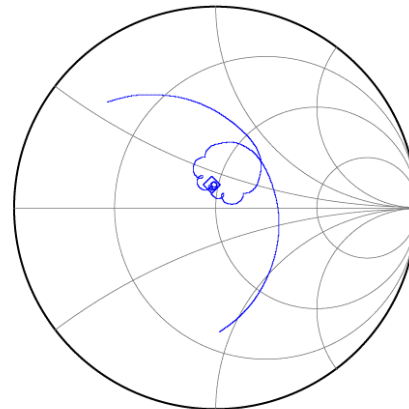
Group Delay



Input Smith Chart



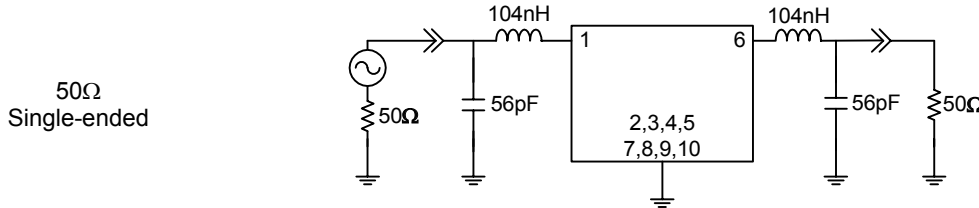
Output Smith Chart



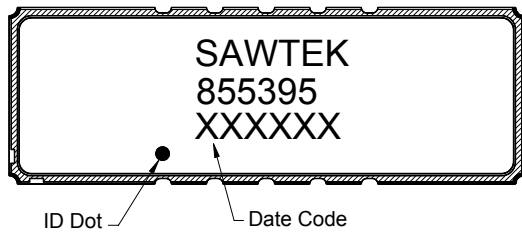
Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

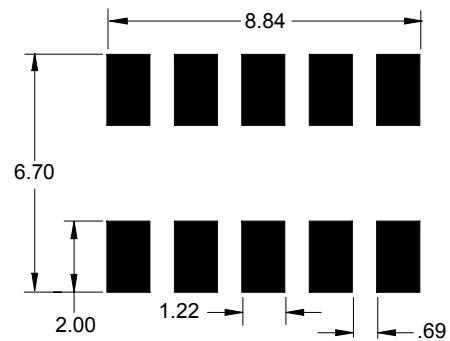


Marking



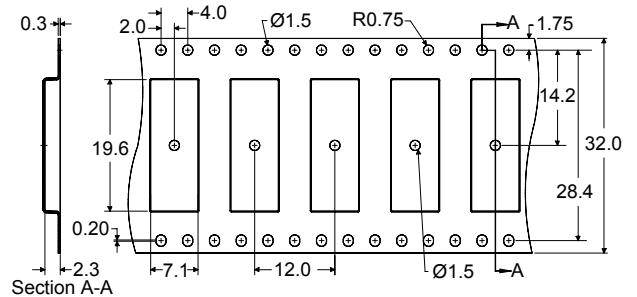
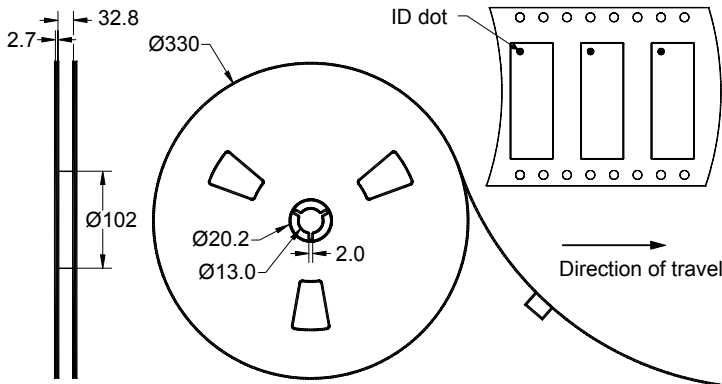
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

PCB Footprint



This footprint represents a recommendation only
 Dimensions shown are nominal in millimeters

Tape and Reel



Dimensions shown are nominal in millimeters
 Packaging quantity: 2000 units/reel

Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Temperature Range	T	0	+25	+85	°C
Storage Temperature Range	T _{stg}	-40	-	+85	°C

Warnings

- Electrostatic Sensitive Device (ESD)
- Avoid ultrasonic exposure



Links to Additional Technical Information

[PCB Layout Tips](#)
[Qualification Flowchart](#)
[Soldering Profile](#)
[S-Parameters](#)
[Other Technical Information](#)

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