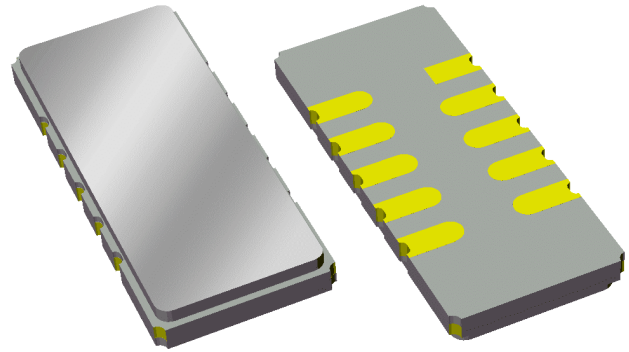


Preliminary Data Sheet

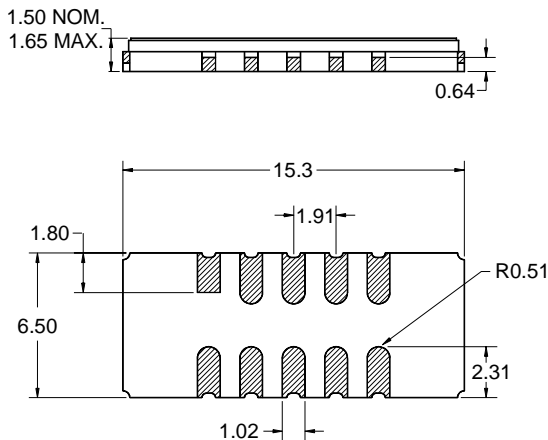
Features

- For Broadband Wireless Access and VOFDM applications
- Usable bandwidth 5.45 MHz
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



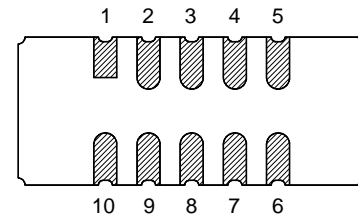
Package

Surface Mount 15.30 x 6.50 x 1.50 mm



Pin Configuration

Bottom View



Pin No.	Description
5	RF Out
10	RF In
1,6	Ground
2,3,4,6	Case ground
7,8,9	Case ground

Dimensions shown are nominal in millimeters
All tolerances are ± 0.15 mm except overall
length and width $+0.15$ mm/ -0.10 mm

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

Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

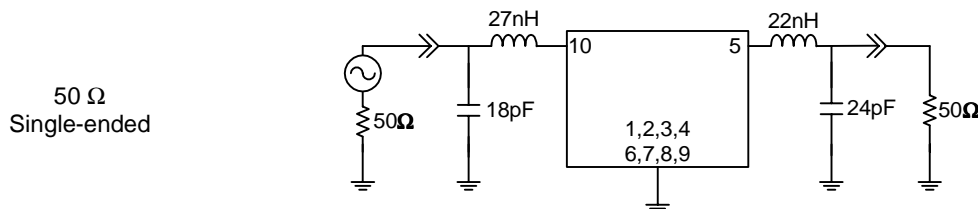
Operating Temperature Range: ⁽²⁾ 0 to +70 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	330	-	MHz
Maximum Insertion Loss at 330 MHz		18.26	20	dB
Upper 0.5 dB Point ⁽⁴⁾	332.75	332.94	-	MHz
Lower 0.5 dB Point ⁽⁴⁾	-	327.00	327.3	MHz
Upper 3 dB Point ⁽⁴⁾	-	333.27	333.65	MHz
Lower 3 dB Point ⁽⁴⁾	326.35	326.68	-	MHz
Upper 40 dB Point ⁽⁴⁾	-	334.38	334.7	MHz
Lower 40 dB Point ⁽⁴⁾	325.4	325.70	-	MHz
Upper 45 dB Point ⁽⁴⁾	-	334.47	334.8	MHz
Lower 45 dB Point ⁽⁴⁾	325.2	325.65	-	MHz
Upper 50 dB Point ⁽⁴⁾	-	335.22	335.9	MHz
Lower 50 dB Point ⁽⁴⁾	322.3	325.56	-	MHz
Relative Attenuation				
100.0 - 322.3 MHz	50	60.07	-	dB
335.9 - 500.0 MHz	50	54.38	-	dB
336.0 MHz	51	58.52	-	dB
Phase Ripple				
327.3 - 332.75 MHz	-	3.8	10	deg p-p
Input VSWR at 330MHz	-	2.39	3.2:1	Ratio
Output VSWR at 330MHz	-	1.95	2.6:1	Ratio
Triple Transit Suppression	38	39.36	-	dB
Passband Ripple ⁽⁵⁾	-	0.299	0.7	dB
Terminating Source Impedance: ⁽⁶⁾	-	50	-	Ω
Terminating Load Impedance: ⁽⁶⁾	-	50	-	Ω

Notes:

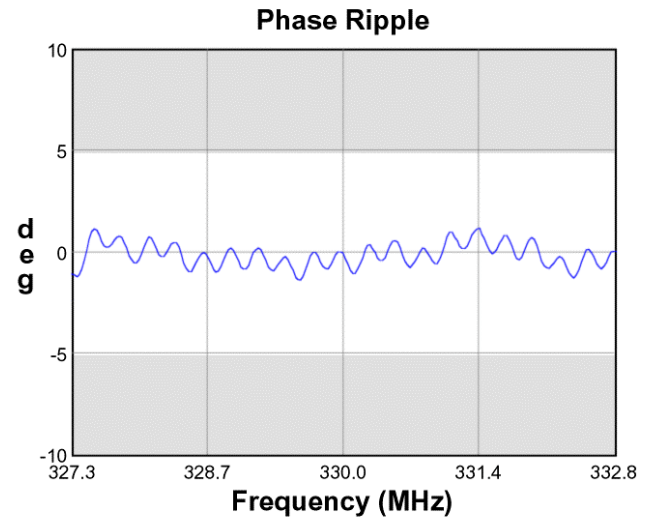
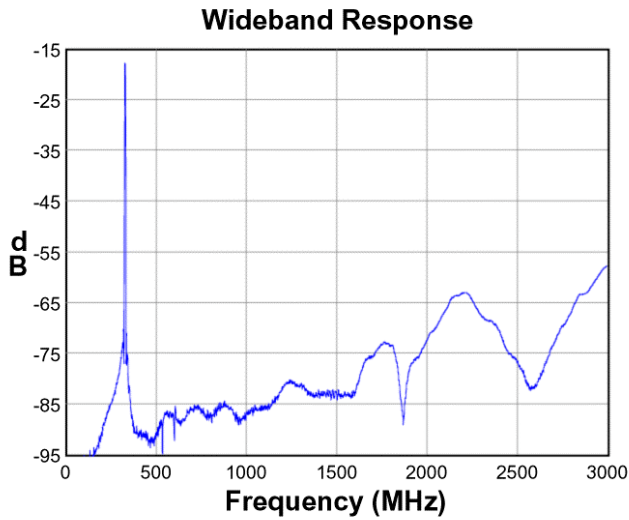
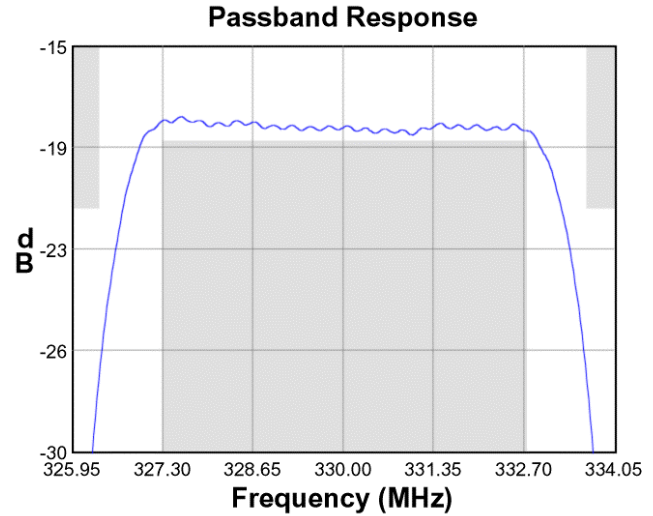
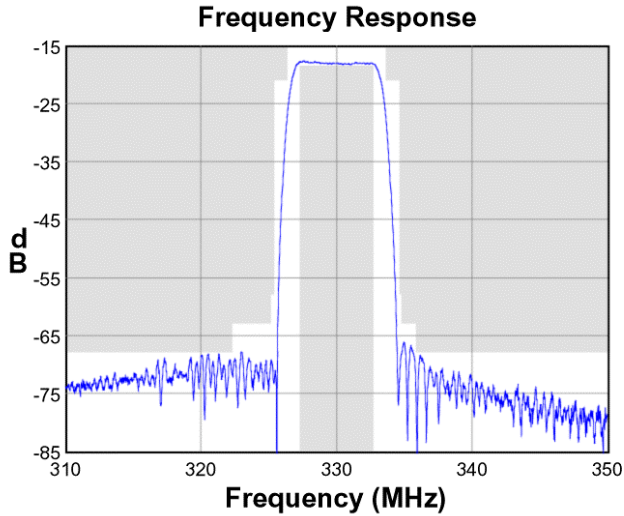
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Relative to insertion loss at 330MHz
5. 100% of the 1 dB bandwidth (Maximum peak to adjacent valley)
6. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

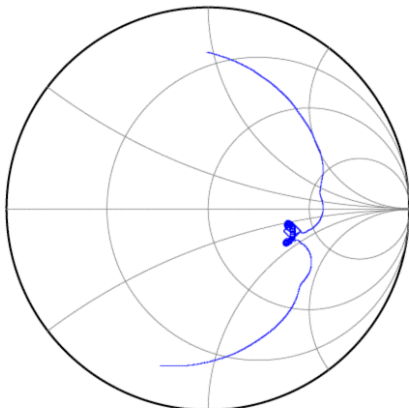


Preliminary Data Sheet

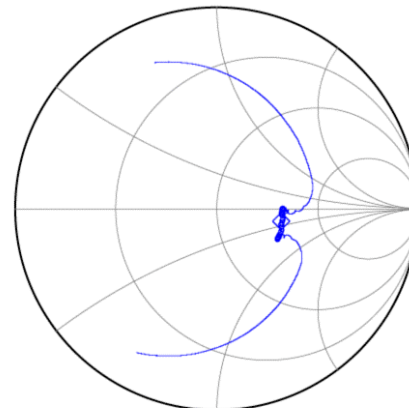
Typical Performance (at +25°C)



Input Smith Chart

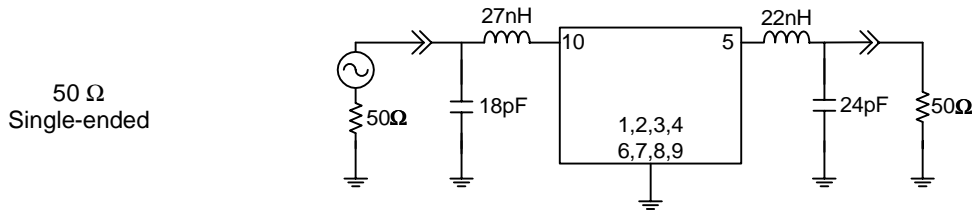


Output Smith Chart

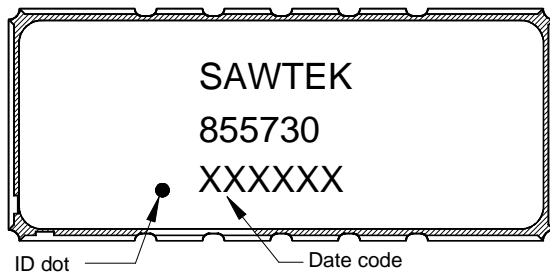


Preliminary Data Sheet

Matching Schematics

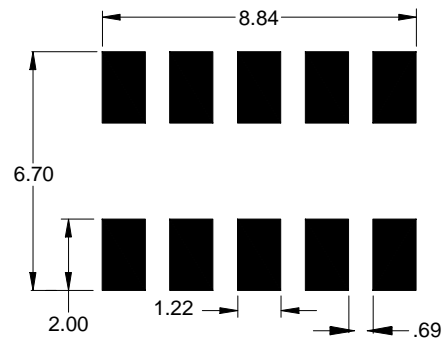


Marking



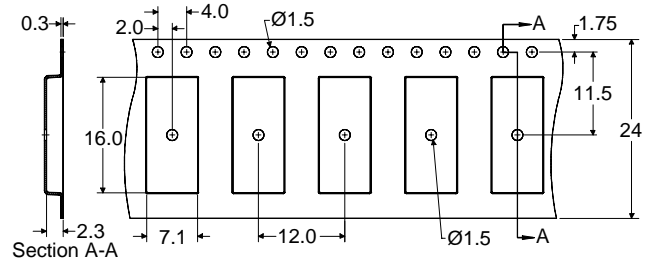
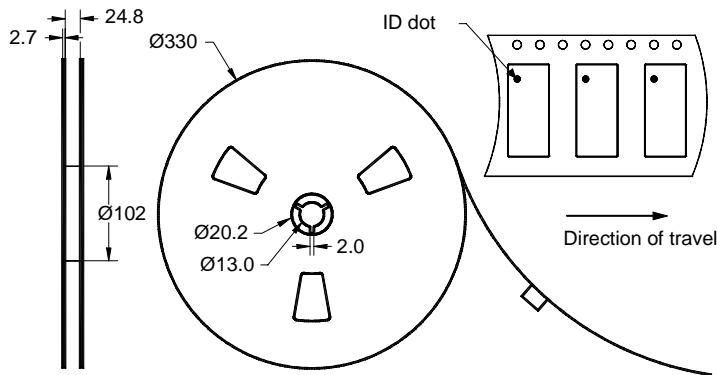
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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

Preliminary Data Sheet

Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Operating Temperature Range	T	0	+70	°C
Storage Temperature Range	T _{stg}	-40	+85	°C
RF Power	P _{in}	-	+10	dBm

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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[representatives or distributors](#)