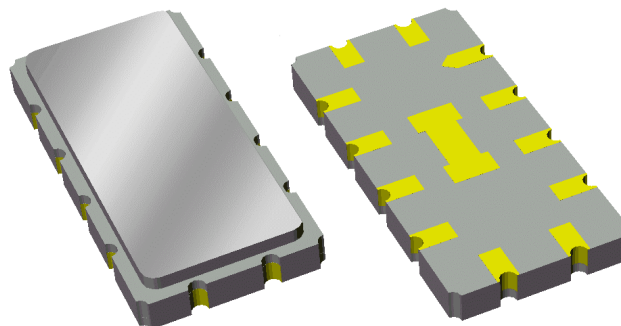


Preliminary Data Sheet

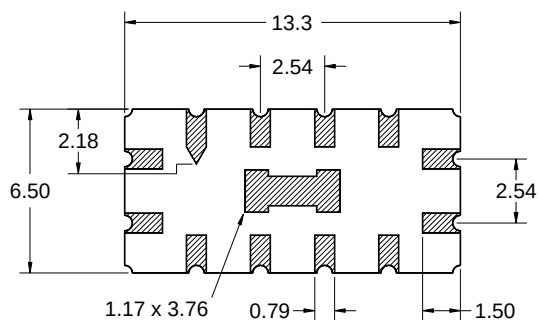
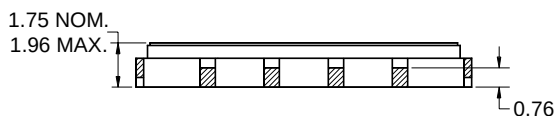
Features

- For broadband wireless access and VOFDM applications
- Usable bandwidth 5.16 MHz
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)
- Small size



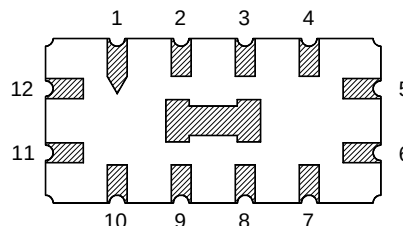
Package

Surface Mount 13.30 x 6.50 x 1.75 mm



Pin Configuration

Bottom View



Pin No.	Description
11	Input
5	Output
1,2,3,4,6	Case ground
7,8,9,10,12	Case ground

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

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

Preliminary Data Sheet

Electrical Specifications ⁽¹⁾

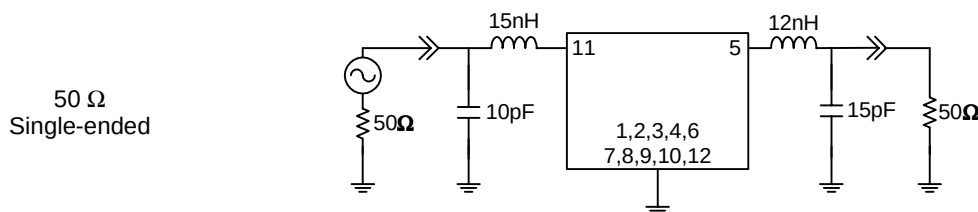
Operating Temperature Range: ⁽²⁾ 0 to +70 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	426	-	MHz
Insertion Loss at 426 MHz	-	18.02	20.5	dB
Upper 0.5 dB Point ⁽⁴⁾	428.52	428.81	-	MHz
Lower 0.5 dB Point ⁽⁴⁾	-	423.16	423.36	MHz
Upper 3 dB Point ⁽⁴⁾	-	429.25	429.65	MHz
Lower 3 dB Point ⁽⁴⁾	422.35	422.69	-	MHz
Upper 40 dB Point ⁽⁴⁾	-	430.53	430.74	MHz
Lower 40 dB Point ⁽⁴⁾	421.31	421.59	-	MHz
Upper 45 dB Point ⁽⁴⁾	-	430.70	430.89	MHz
Lower 45 dB Point ⁽⁴⁾	421.20	421.55	-	MHz
Upper 50 dB Point ⁽⁴⁾	-	432.75	433.50	MHz
Lower 50 dB Point ⁽⁴⁾	419.50	421.51	-	MHz
Relative Attenuation				
100.0 - 419.5 MHz	50	60.1	-	dB
433.5 - 500.0 MHz	50	53.2	-	dB
Phase Ripple				
423.3 - 428.7 MHz	-	3.1	10	deg p-p
Input VSWR at 426MHz	-	3.2	5.0:1	
Output VSWR at 426MHz	-	1.9	2.5:1	
Triple Transit Suppression	40	43	-	dB
Passband Ripple ⁽⁵⁾	-	0.21	0.7	dB
Source Impedance: ⁽⁶⁾	-	50	-	Ω
Load Impedance: ⁽⁶⁾	-	50	-	Ω

Notes:

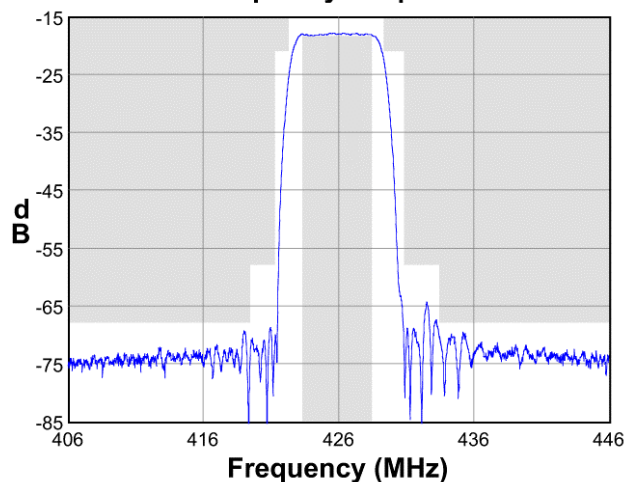
1. All specifications are based on the test circuit shown below
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Relative to insertion loss at 426MHz
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:

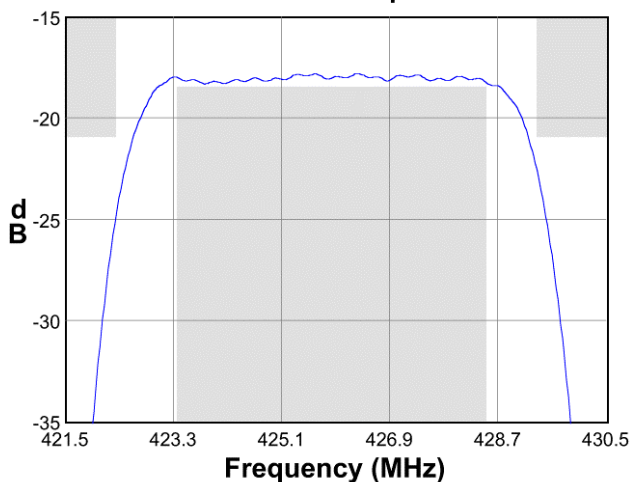


Typical Performance (at +25°C)

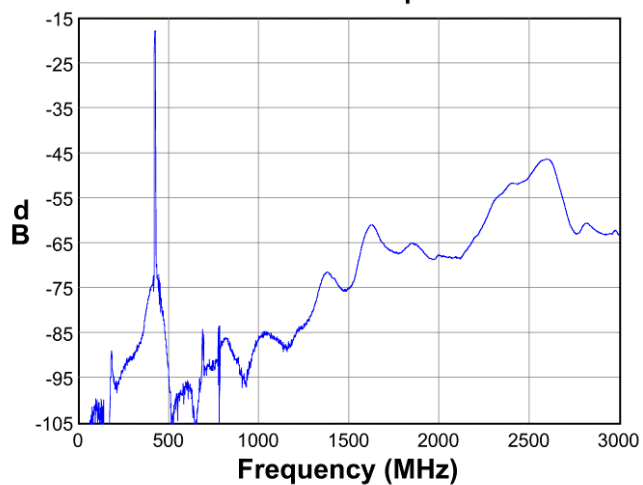
Frequency Response



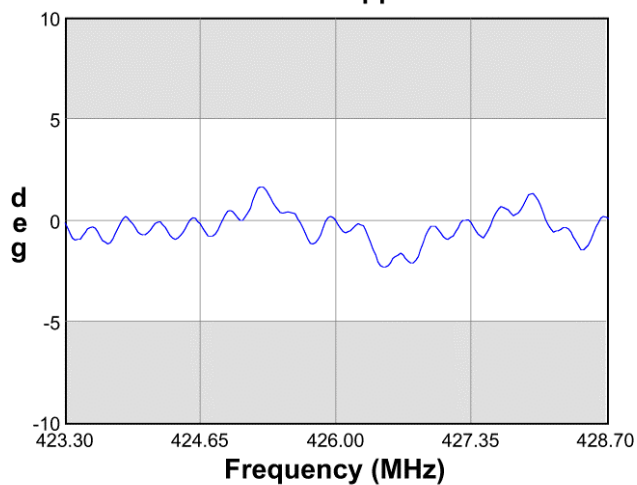
Passband Response



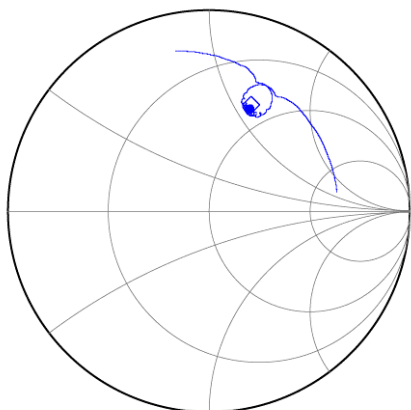
Wideband Response



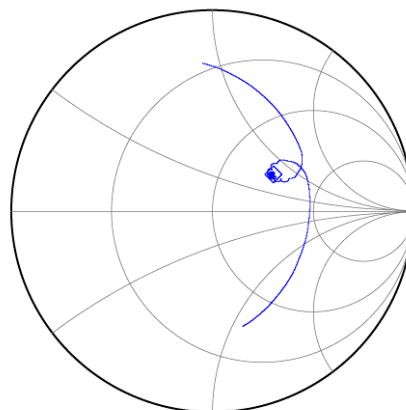
Phase Ripple



Input Smith Chart



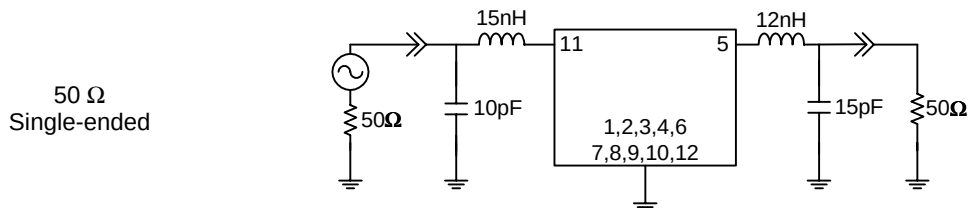
Output Smith Chart



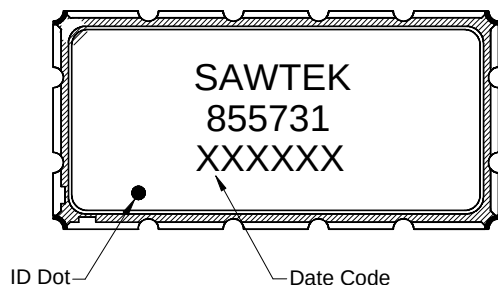
Preliminary Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

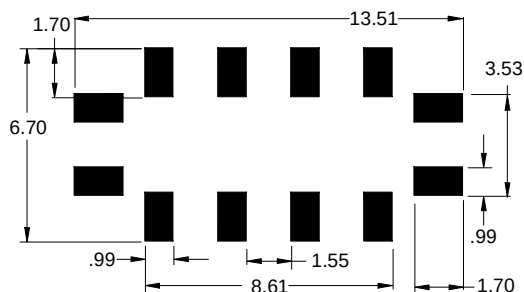


Marking



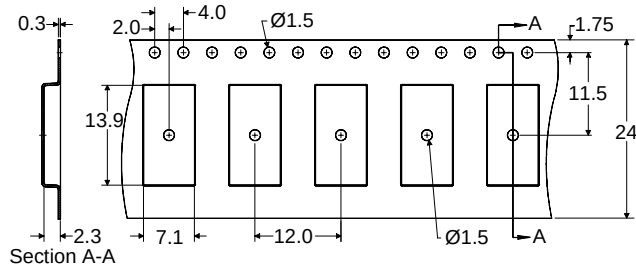
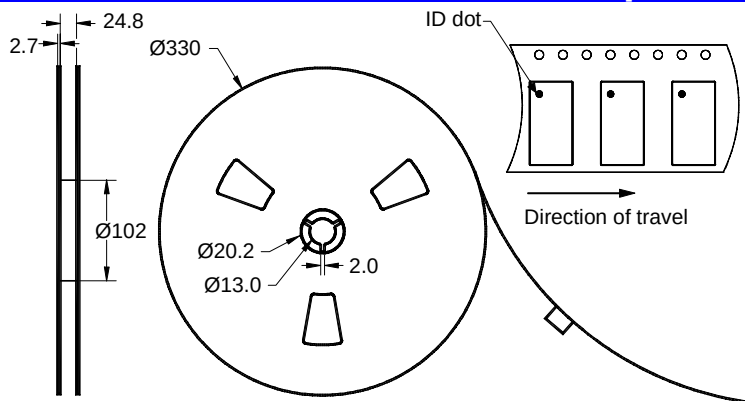
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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

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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network of [sales offices](#),
[representatives or distributors](#)