
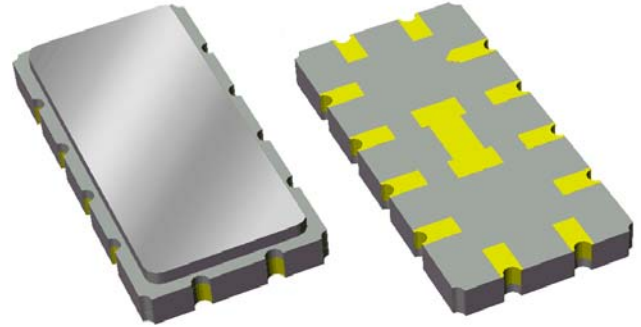


Data Sheet

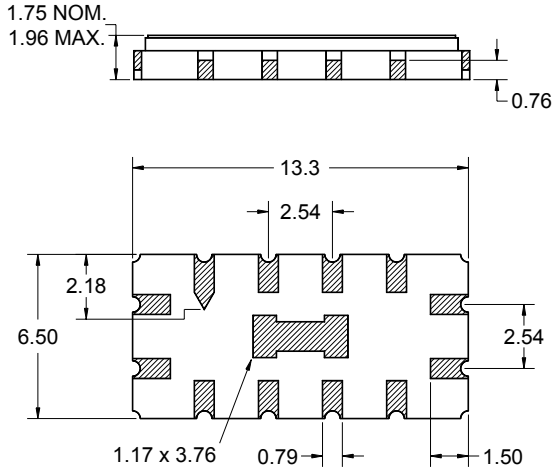
Features

- For GSM/EDGE applications
- Usable bandwidth 400 KHz
- Single-ended and differential operation
- Ceramic Surface Mount Package (SMP)
- Hermetic
- RoHS compliant (2002/95/EC), Pb-free 



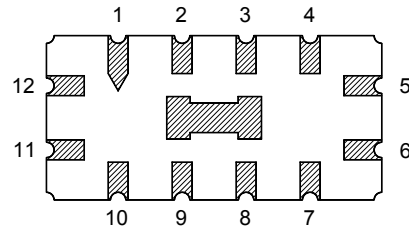
Package

Surface Mount 13.3 x 6.50 x 1.75 mm



Pin Configuration

Bottom View



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

Dimensions shown are nominal in millimeters
 All tolerances are ± 0.15 mm except overall
 length and width ± 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

Data Sheet
Electrical Specifications ⁽¹⁾
Operating Temperature Range: ⁽²⁾ -10 to +85 °C

Parameter ⁽³⁾	Minimum	Typical	Maximum	Unit
Center Frequency	-	125	-	MHz
Insertion Loss at Fo	4	5.7	7	dB
1 dB Lower Frequency	-	124.719	124.8	MHz
1 dB Upper Frequency	125.2	125.307	-	MHz
8 dB Lower Frequency	124.4	124.494	-	MHz
8 dB Upper Frequency	-	125.547	125.6	MHz
20 dB Lower Frequency	123.8	124.313	-	MHz
20 dB Upper Frequency	-	125.742	126.2	MHz
Amplitude Variation 124.8 - 125.2 MHz	-	0.62	1	dB p-p
Group Delay Variation 124.8 - 125.2 MHz	-	194	300	nsec
Absolute Delay 124.8 - 125.2 MHz	0.7	1.230	1.7	µsec
Absolute Attenuation 10 - 112 MHz	55	72	-	dB
112 - 115.5 MHz	43	66	-	dB
115.5 - 119 MHz	40	61	-	dB
119 - 121.6 MHz	34	47	-	dB
121.6 - 123.2 MHz	25	34	-	dB
123.2 - 123.8 MHz	20	32	-	dB
126.2 - 126.8 MHz	20	32	-	dB
126.8 - 128.4 MHz	25	37	-	dB
128.4 - 131 MHz	34	48	-	dB
131 - 134.5 MHz	40	51	-	dB
134.5 - 138 MHz	43	59	-	dB
138 - 450 MHz	55	72	-	dB
Input/Output VSWR 124.8 - 125.2 MHz	-	1.51/1.79	2.3	-
Source Impedance ⁽⁴⁾	-	50	-	Ω
Load Impedance ⁽⁴⁾	-	50	-	Ω

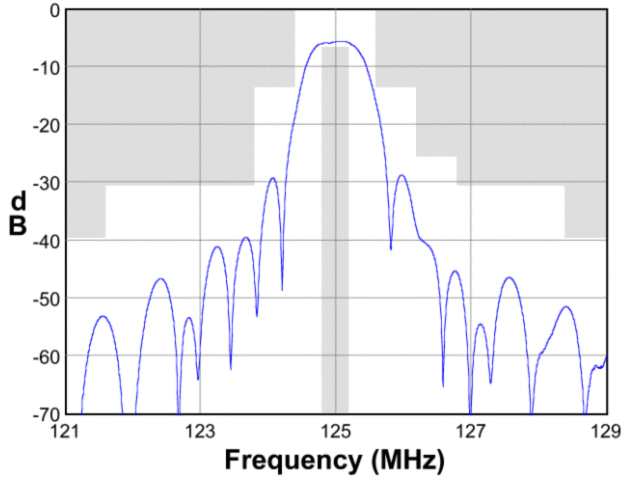
Notes:

1. All specifications are based on the test circuit shown on page 4
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

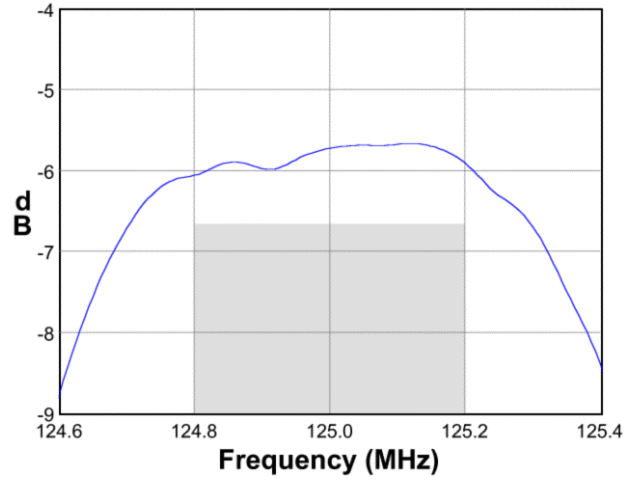
Data Sheet

Typical Performance (at +25°C)

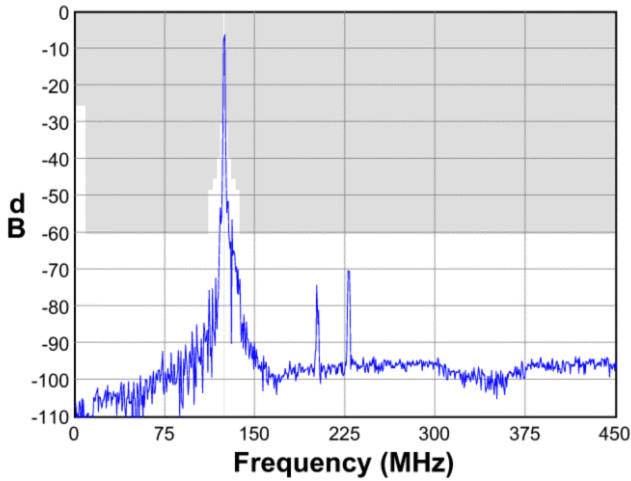
Frequency Response



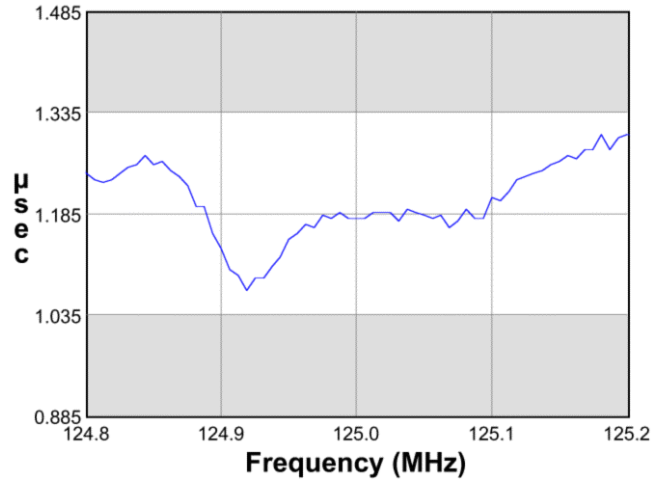
Passband Response



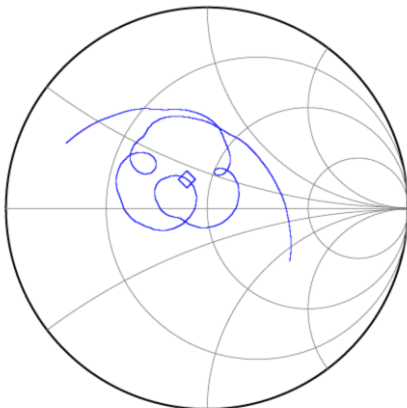
Wideband Response



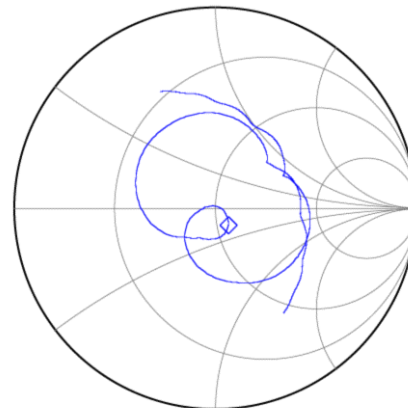
Group Delay Variation



Input Smith Chart



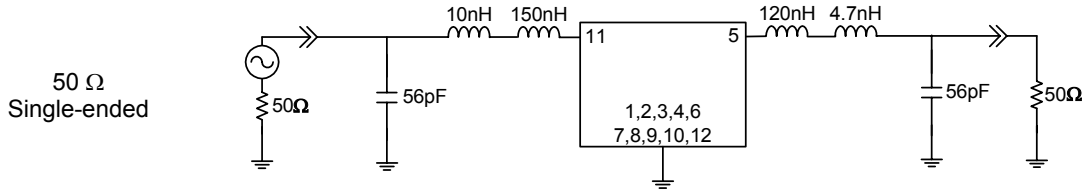
Output Smith Chart



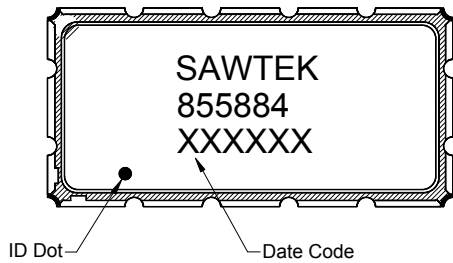
Data Sheet

Matching Schematics

Actual matching values may vary due to PCB layout and parasitics

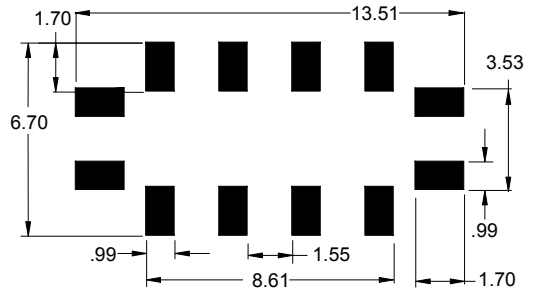


Marking



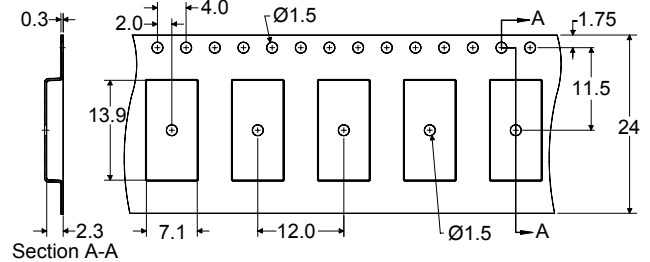
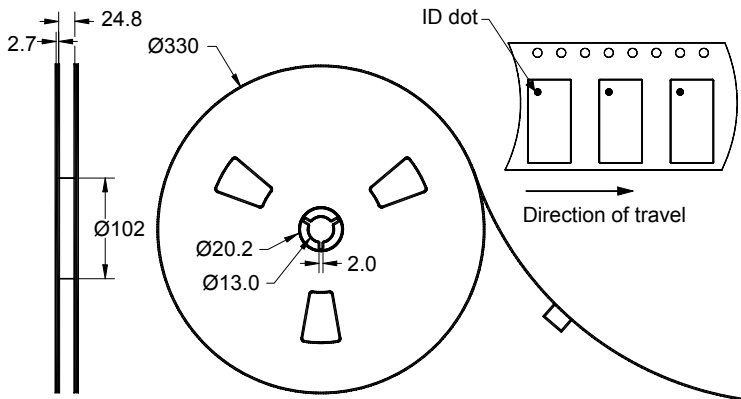
The date code consists of: day of the current year (Julian, 3 digits), last digit of the year (1 digit) and hour (2 digits)

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	-10	+25	+85	°C
Storage Temperature Range	T _{stg}	-40	-	+125	°C
Input Power	P _{in}	-	-	10	dBm

Important Notes

Warnings

- Electrostatic Sensitive Device (ESD) 
- Avoid ultrasonic exposure

RoHS Compliance

- This product complies with EU directive 2002/95/EC (RoHS) 

Solderability

- Compatible with JEDEC J-STD-020C **Pb**-free process, **260°C** peak reflow temperature ([see soldering profile](#))

Links to Additional Technical Information

[PCB Layout Tips](#)

[Qualification Flowchart](#)

[Soldering Profile](#)

[S-Parameters](#)

[RoHS information](#)

[Other Technical Information](#)

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Contact Information



PO Box 609501
 Orlando, FL 32860-9501
 USA

Phone: +1 (407) 886-8860
 Fax: +1 (407) 886-7061
 Email: custservice@sawtek.com
 Web: www.sawtek.com

Or contact one of our worldwide
 Network of [sales offices](#),
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