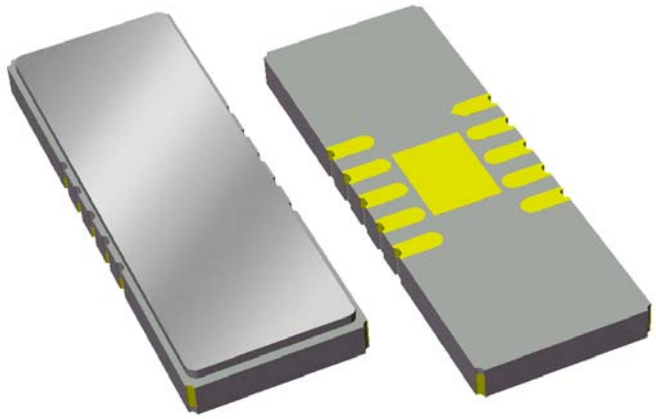
Part Number 856129
44 MHz SAW Filter

Preliminary Data Sheet

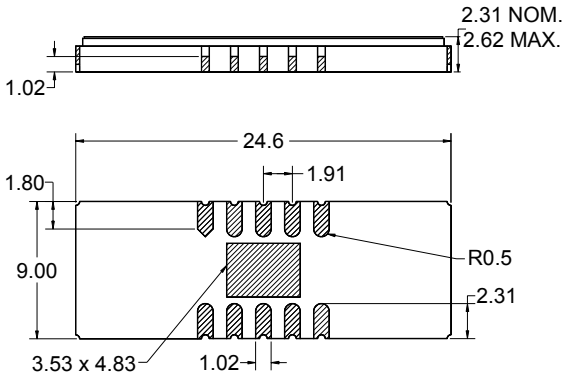
Features

- For cable headend IF applications
- Usable bandwidth 6.0 MHz
- High attenuation
- Single-ended operation
- Ceramic Surface Mount Package (SMP)



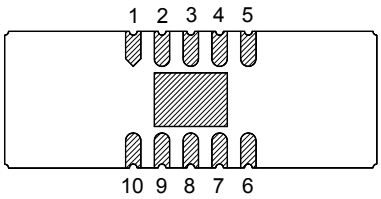
Package

Surface Mount 24.6 x 9.00 x 2.31 mm



Pin Configuration

Bottom View



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

Dimensions shown are nominal in millimeters
All tolerances are ±0.15mm except overall length ±0.20mm and width +0.13/-0.20mm

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

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Electrical Specifications [1]

Operating Temperature: [2] +25 °C

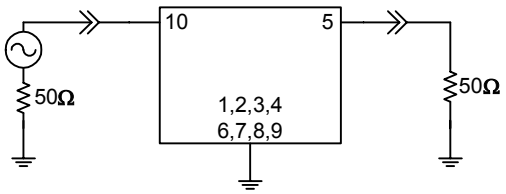
Parameter [3]	Minimum	Typical	Maximum	Unit
Center Frequency	-	44.0	-	MHz
Minimum Insertion Loss	-	20.8	22.0	dB
Lower 3 dB Bandedge [4]	-	40.95	41.0	MHz
Upper 3 dB Bandedge	47.0	47.07	-	MHz
Lower 38 dB Bandedge [4]	40.0	40.35	-	MHz
Upper 38 dB Bandedge	-	47.75	48	MHz
Passband Variation 41.5 - 46.5 MHz	-	0.63	0.75	dB
Phase Linearity 41.9 - 46.1 MHz	-	3.35	4.25	deg
Group Delay Variation 41.9 - 46.1 MHz	-	80	100	µsec
Stopband Attenuation [4]				
24 - 40 MHz	38	45	-	dB
48 - 84 MHz	38	45	-	dB
Source Impedance [5]	-	50	-	Ω
Load Impedance [5]	-	50	-	Ω

Notes:

1. All specifications are based on the test circuit shown below
2. This specification is valid for room temperature only
3. Electrical margin has been built into the design to account for the variations due to manufacturing tolerances
4. All attenuation measurements are measured relative to minimum insertion loss
5. This is the optimum impedance in order to achieve the performance shown

Test Circuit:

50 Ω
Single-ended



No impedance matching required

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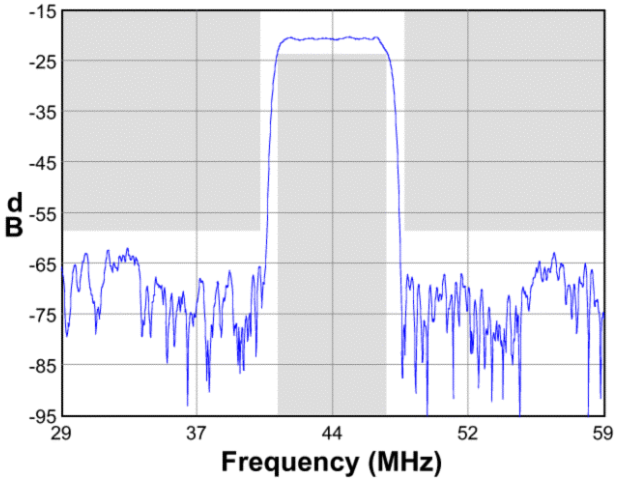
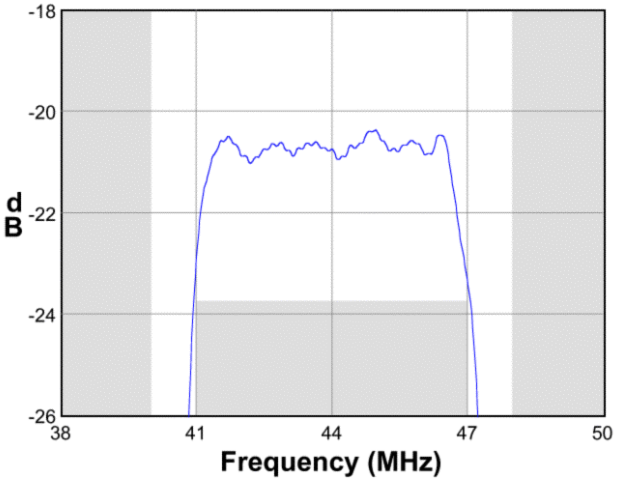
Typical Performance (at +25°C)

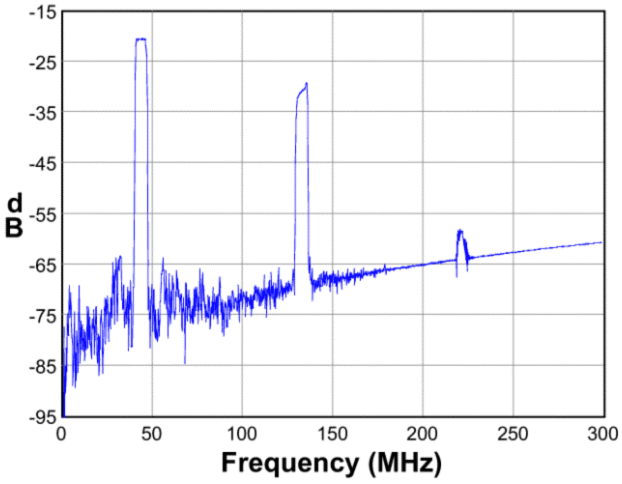
Frequency Response



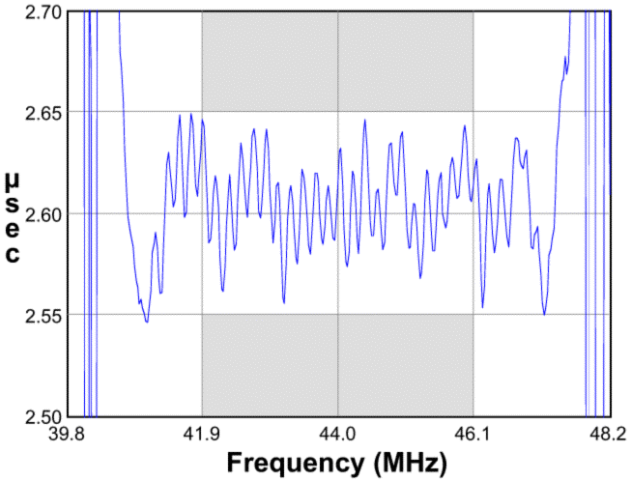
Passband Response



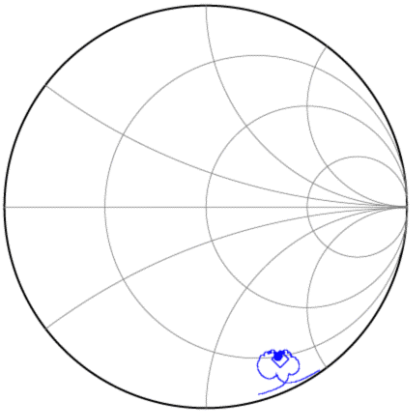
Wideband Response



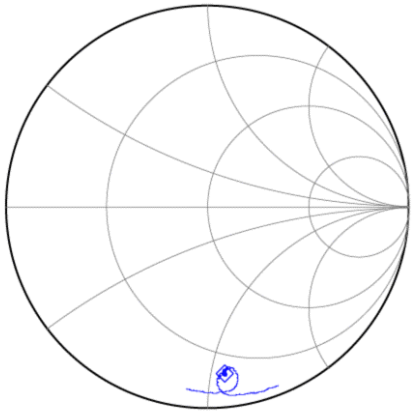
Group Delay Variation



Input Smith Chart



Output Smith Chart



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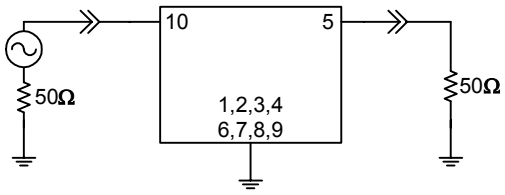
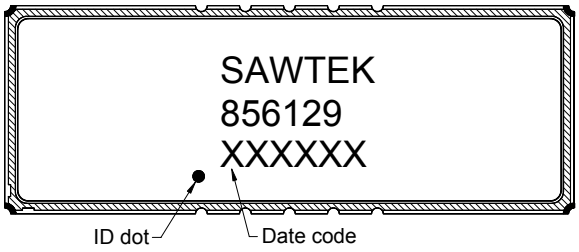
Matching Schematics

50 Ω
Single-ended



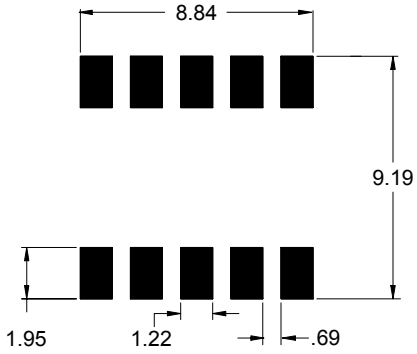
No impedance matching required

Marking



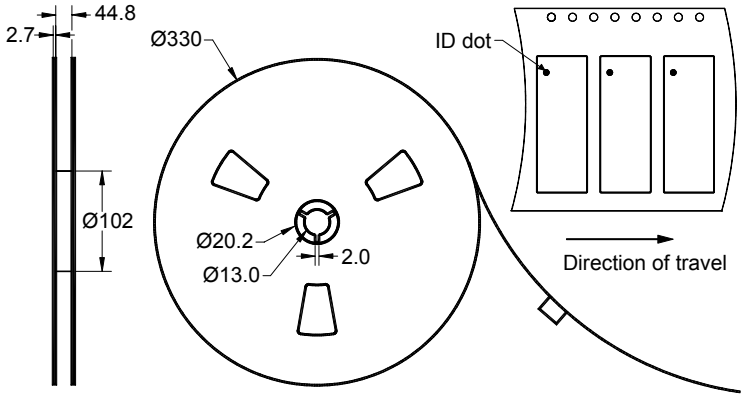
Date code is the day of the current year in Julian format, last digit of the year, and hour of the day

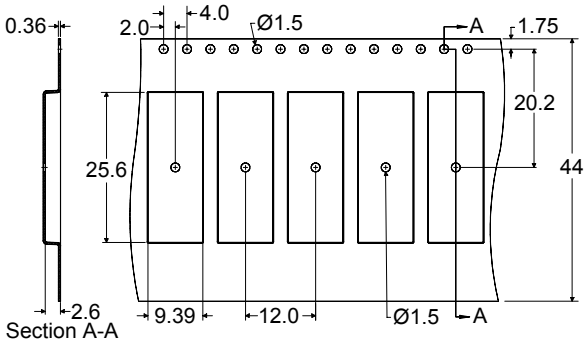
PCB Footprint



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

Tape and Reel





Dimensions shown are nominal in millimeters
Packaging quantity: 1000 units/reel

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Maximum Ratings

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Temperature Range	T	-	25	-	°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

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, representatives or distributors