

RoHS Compliance This component is compliant with RoHS directive. This component was always RoHS compliant from the first date of manufacture.

Designed for TDMA IS-54 Receiver IF Applications

- Low Insertion Loss
- Excellent Selectivity
- Hermetic 13.3 X 6.5 mm Surface-mount Case
- Unbalanced Input and Output

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage Between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 30 s	



Electrical Characteristics

Characteristic			Notes	Min	Тур	Max	Units	
Nominal Center Frequency		f _C	1	86.850			MHz	
Passband	Insertion Loss at fc	IL			3	4.0	dB	
	3 dB Passband	BW3		±12	±25		kHz	
	Amplitude Ripple over fc ±15 kHz		4.0			1.0	dB _{P-P}	
	Group Delay Variation over fc ±10 kHz	GDV	1, 2			6.0	µs _{P-P}	
Third-Order Intermod. for	-20 dBm tones at fc ±60 & 120 kHz					-95	dBm	
Rejection	fc ±60 kHz			11	16			
	fc -880 kHz to fc -940 kHz		1, 2, 3	65			dB	
	Ultimate				65		1	
Operating Temperature Range			1	-20		+70	°C	
Impedance Matching to 50 Ω unbalanced				Ext	ernal L-C			
Case Style		SM13365-12 13.3 X 6.5 mm Nominal Footprint						
Lid Symbolization (YY=year, WW=week) See note 4			RFM PX1002 YYWW					
Standard 7" Reel Quantity			500 units					
Standard 13" Reel Quantity			1000 units					

Electrical Connections

Connection	Terminals
Port 1Hot	2
Port 1 Gnd Return	3
Port 2 Hot	8
Port 2 Gnd Return	9
Case Ground	All Others

Caution: Electrostatic Sensitive Device. Observe precautions for handling. Ý NOTES:

- Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance 1. matching to 50 Ω and measured with 50 Ω network analvzer.
- Unless noted otherwise, all frequency specifications are referenced to the 2.
- nominal center frequency, fc. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and 3 external impedance matching design. See Application Note No. 42 for details. "LRIP" or "L" after the part number indicates "low rate initial production" and 4

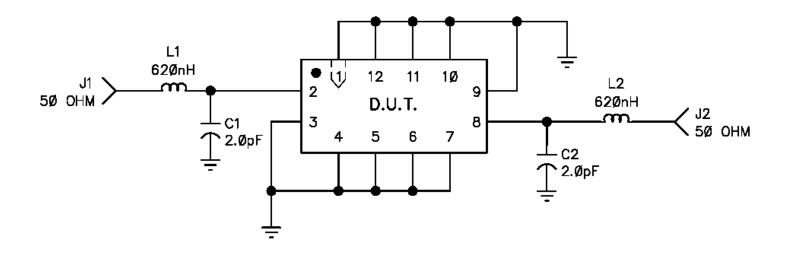
- "ENG" or "E" indicates "engineering prototypes." The design, manufacturing process, and specifications of this filter are subject 5.
- Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit 6 desian
- 7.

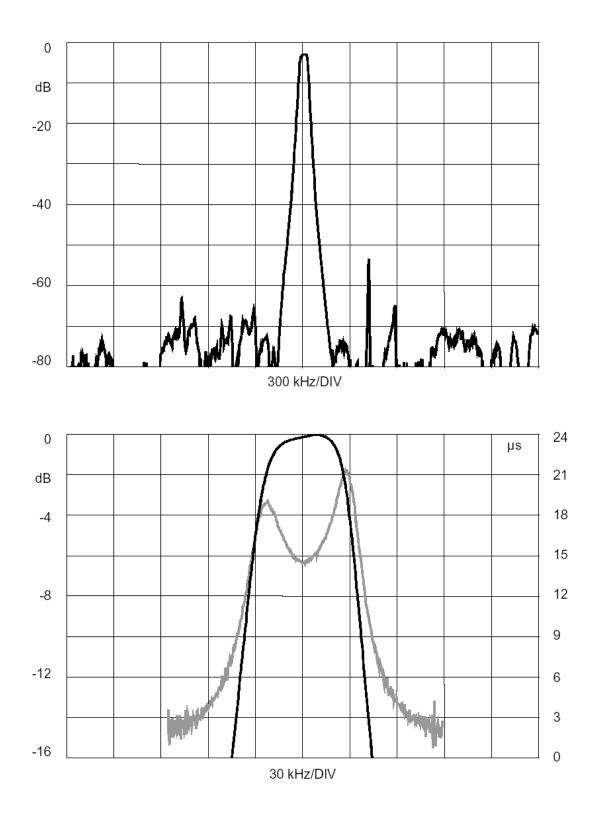
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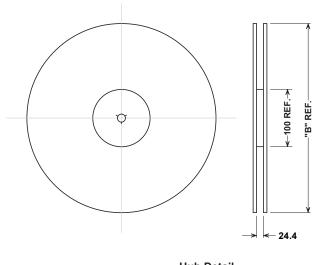
PX1002

SCHEMATIC, PX1002 (DEMO)

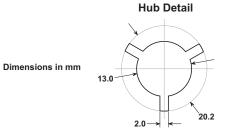




Tape and Reel Specifications

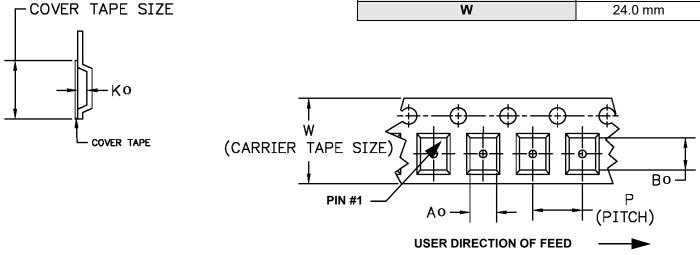


4	'B"	Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000



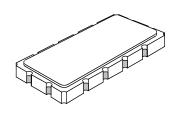
COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions			
Ао	7.0 mm		
Во	13.8 mm		
Ко	2.0 mm		
Pitch	12.0 mm		
W	24.0 mm		



SM13365-12 Case

12-Terminal Ceramic Surface-Mount Case 13.3 x 6.5 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
Α	13.08	13.31	13.60	0.515	0.524	0.535
В	6.27	6.50	6.80	0.247	0.256	0.268
С		1.91	2.00		0.075	0.079
D		1.50			0.059	
E		0.79			0.031	
н		1.0			0.039	
Р		2.54			0.100	

Materials				
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel			
Lid Plating	2.0 to 3.0 µm Nickel			
Body	Al ₂ O ₃ Ceramic			
	Pb Free			

