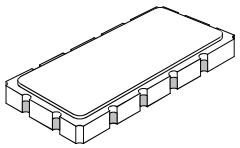
AEC-Q200
This component was always RoHS compliant from the first date of manufacture.

PX1004-1

82.2 MHz SAW Filter

- ***Low Insertion Loss***
- ***Excellent Selectivity***
- ***Hermetic 13.3 X 6.5 mm Surface-mount Case***
- ***Single-ended Input and Output***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM13365-12

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		Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency		f_C			82.20		MHz
Passband	Insertion Loss at fc	IL			3.0	5.5	dB
	3 dB Passband	BW_3		±25	±42		kHz
	Amplitude Ripple over fc ±15 kHz					1.0	dB_{P-P}
	Group Delay Variation over fc ±17 kHz	GDV				6.0	μs_{P-P}
Third-Order Intermod. for -20 dBm tones at fc ±100 & 200 kHz						-95	dBm
Rejection	fc ±100 kHz			11	16		dB
	fc -1500 kHz to fc -1600 kHz			65			
	Ultimate				65		
Operating Temperature Range		T_A		-20		+70	°C

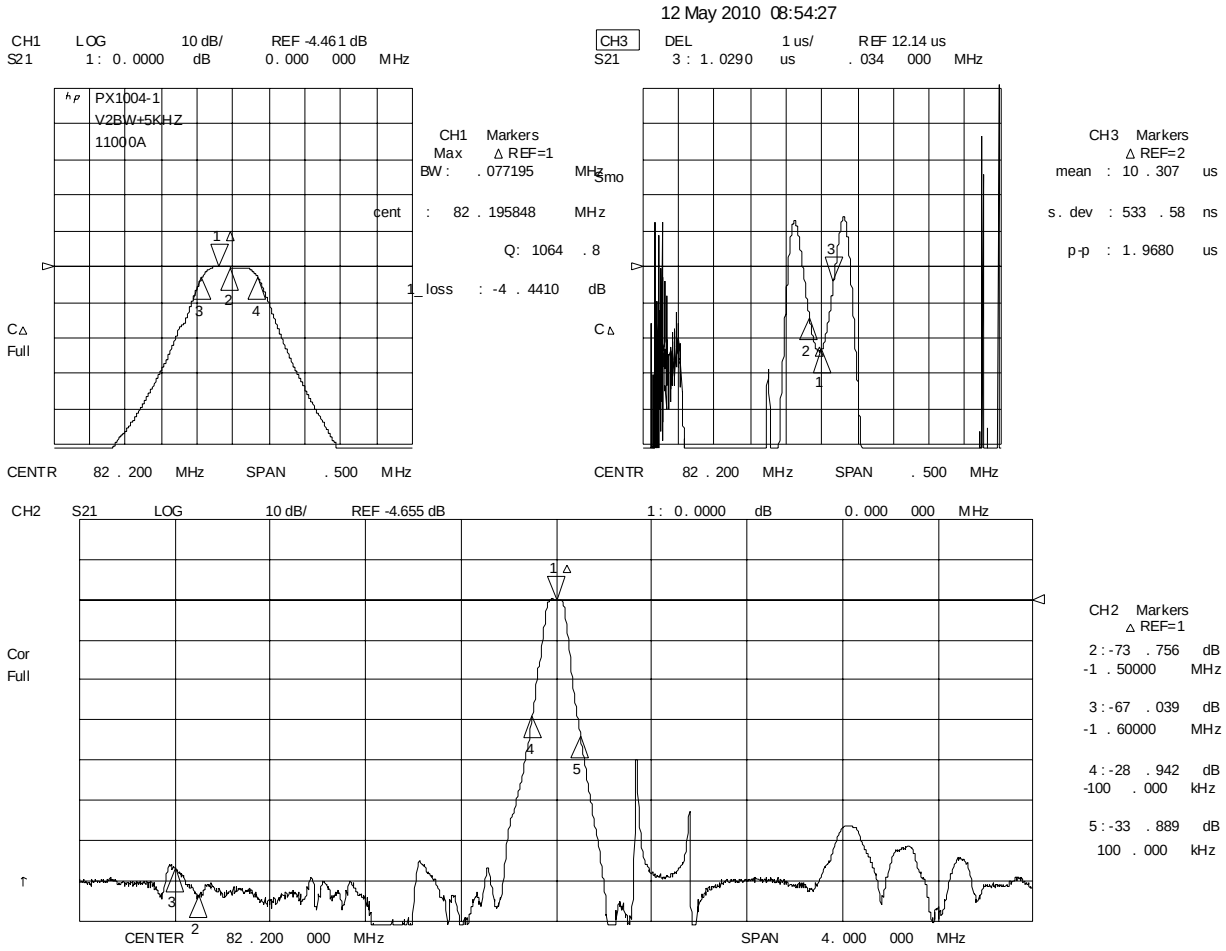
Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SM13365-12 13.3 X 6.5 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week, S=shift)	RFM PX1004-1 YYWWS

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

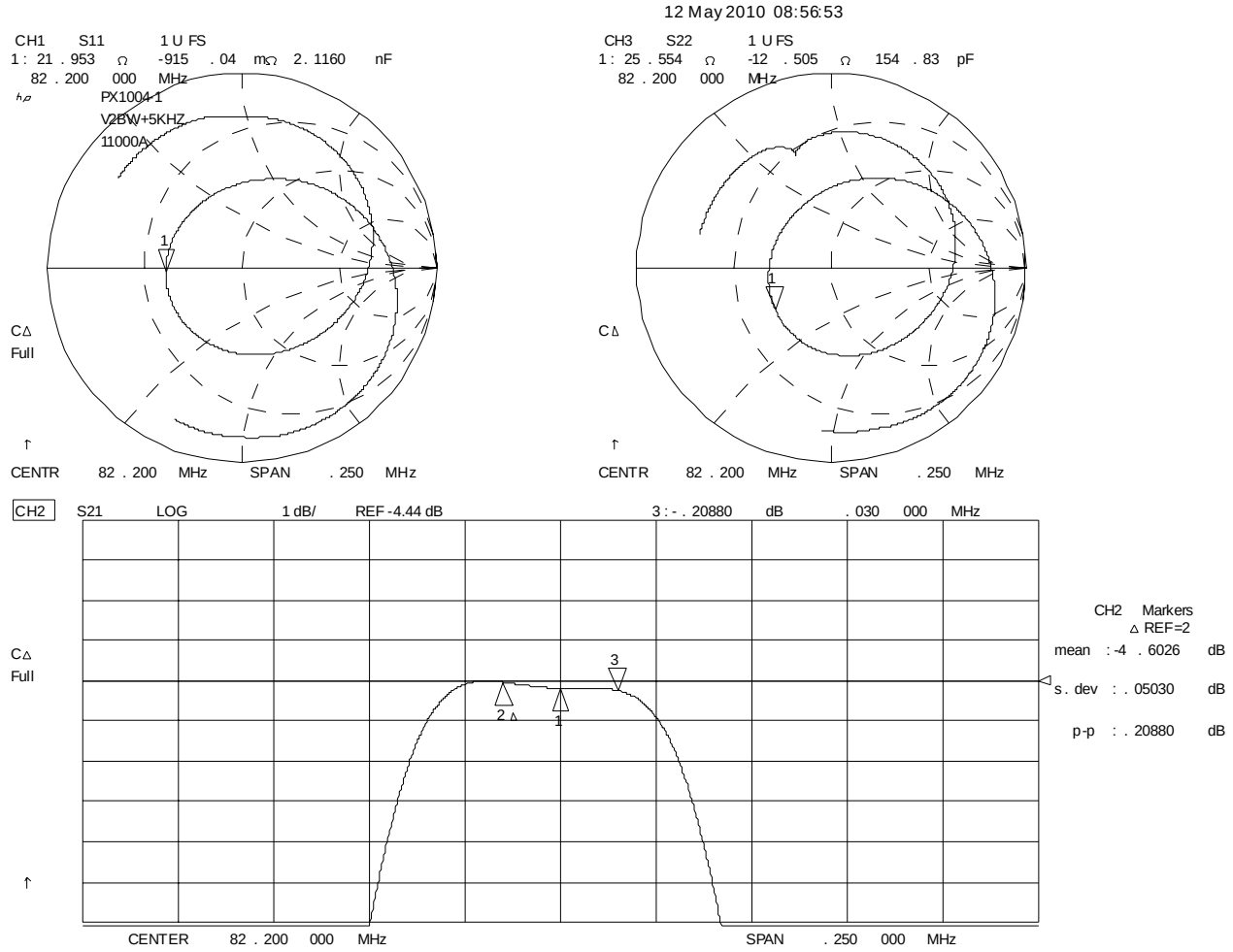
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.

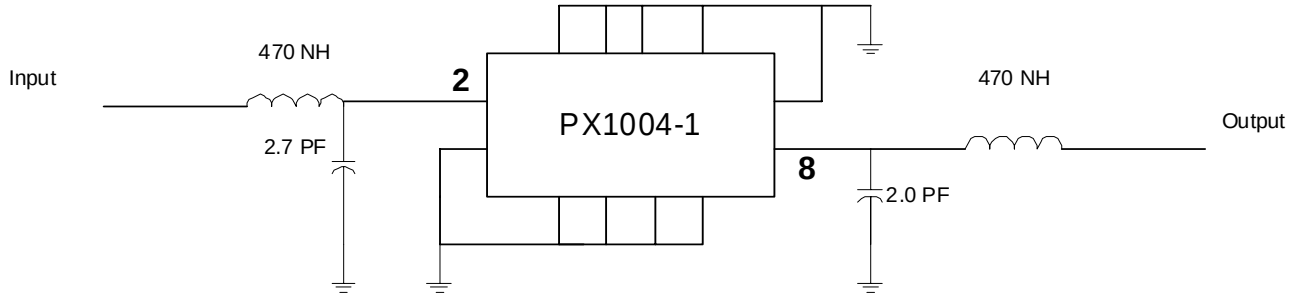
Amplitude and Group Delay Plots



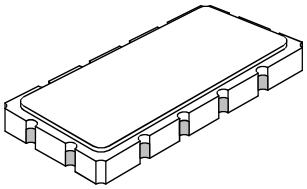
Input/Output Impedance and Passband Amplitude Plots



Filter Test Circuit



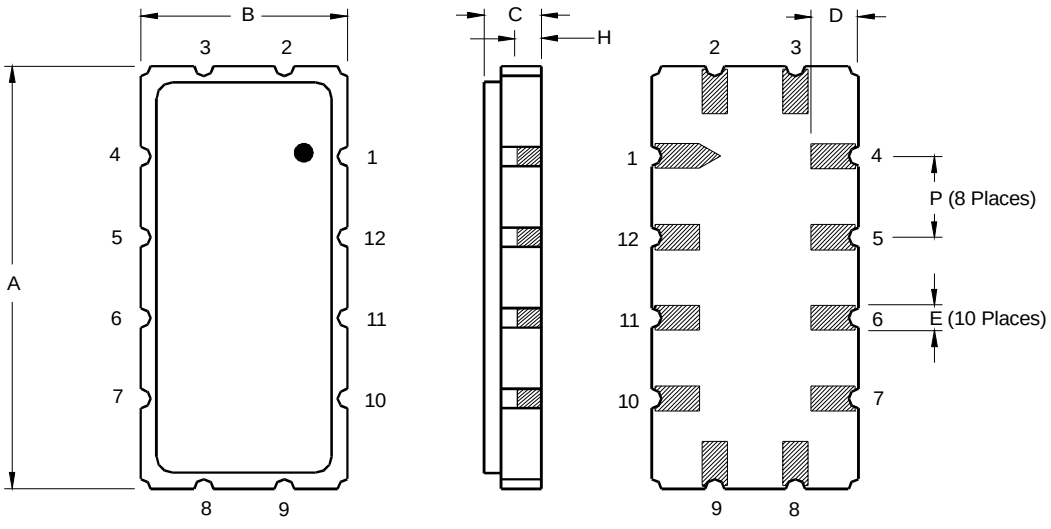
SM13365-12 Ceramic 12-Terminal Surface-Mount Case
13.3 x 6.5 mm Nominal Footprint



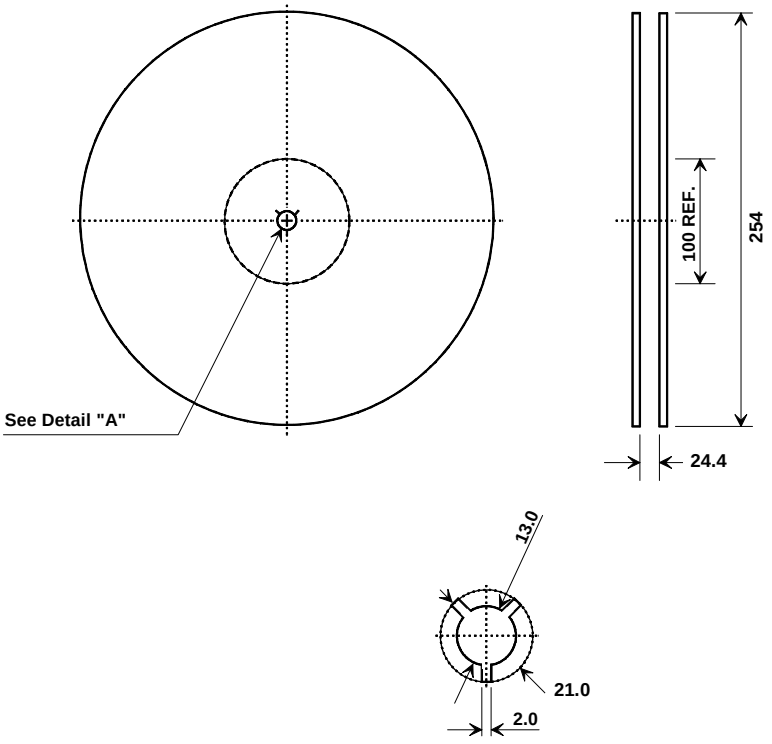
Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	13.08	13.31	13.60	0.515	0.524	0.535
B	6.27	6.50	6.80	0.247	0.256	0.268
C		1.91	2.00		0.075	0.079
D		1.50			0.059	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

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_2O_3 Ceramic
Pb Free	

Electrical Connections		
Connection		Terminals
Port 1	Input	2
	Return	3
Port 2	Output	8
	Return	9
	Ground	All others
Single-ended Operation		Return is ground



Tape and Reel Specifications

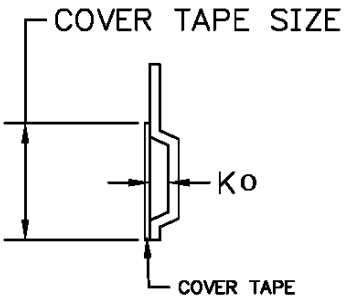


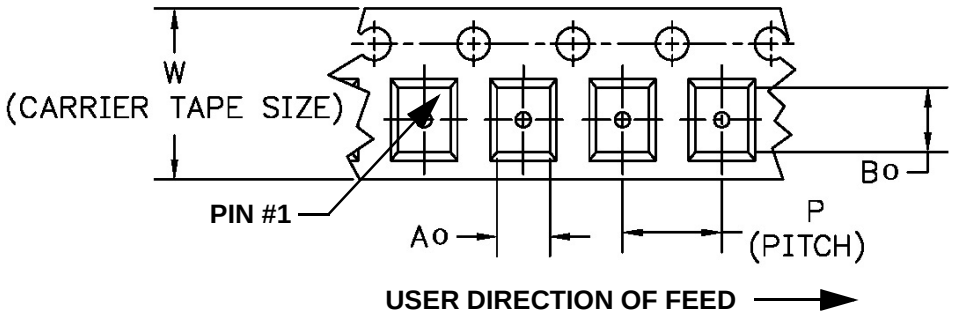
Tape and Reel Standard per ANSI/EIA-481

Quantity Per Reel
1000

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	7.0 mm
Bo	13.8 mm
Ko	2.0 mm
Pitch	12.0 mm
W	24.0 mm





Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.