Ceramic Resonator

Bandpass Filter

ZX75BP-942+

50Ω 875 to 1010 MHz

The Big Deal

- Low Insertion Loss, 1.1 dB
- Excellent Rejection
  750 MHz, 1160 MHz, 30 dB
  690 MHz, 1250 MHz, 49 dB
- Rejection band extends to 7 GHz

CASE STYLE: HY1238

Product Overview

The Mini-Circuits ZX75BP-942+ ceramic coaxial resonator based filter offers outstanding close-in rejection in the GSM bands. Built using Mini-Circuits proven unibody construction which integrates the RF connectors with the case body, the ZX75BP-942+ takes very little space, and includes a multi-section low pass filter to prevent second harmonic re-entry that is characteristic of typical ceramic resonator filters.

Key Features

Feature	Advantages
Outstanding close-in rejection	Using high Q ceramic resonators enables this filter to support applications where tight rejection performance is required.
Rejection band extended to 7 GHz	Integrated "clean up" low pass filter enables excellent rejection up to 7 GHz eliminating the need for additional external filters.
High Power Handling, 10W	Ability to withstand high power signals allows operation in many lab and integrated assembly applications, or for use in field applications as a quick-fix filter solution.
Excellent Temperature Stability	±0.2 dB insertion loss over the full temperature range.
Compact Versatile Case	Case Body: 1.2"x0.75"x0.46" With connectors and flanges: 2.05"x1.18"x0.46" Connectors: SMA Female (1), SMA Male (1)

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SMA Connectors	Model	Price	Qty.
IN MALE OUT FEM	ZX75BP-942-S+	$59.95 ea.	(1-9)

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

* Derate linearly to 5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

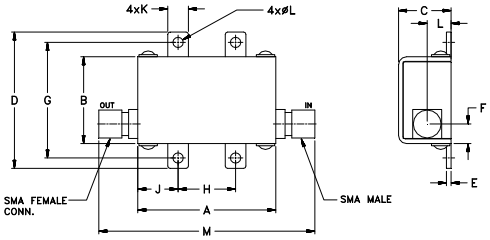
Features

- Low Insertion loss, 1.1 dB typ.
- Minimal Insertion loss variation over temperature, ±0.2 dB
- Sharp stop band rejection
- Protected by US Patent 6,790,049

Applications

- Harmonic & Sub-harmonic filtering
- Image rejection
- Receivers/Transmitters
- Test Lab
- GSM

Outline Drawing



Outline Dimensions (inch / mm)

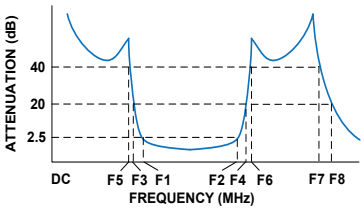
A	B	C	D	E	F	G
1.20	.75	.46	1.18	.04	.17	1.00
30.48	19.05	11.68	29.97	1.02	4.32	25.40

H	J	K	L	M	wt
.50	.35	.18	.106	2.05	grams
12.70	8.89	4.57	2.69	52.07	35.00

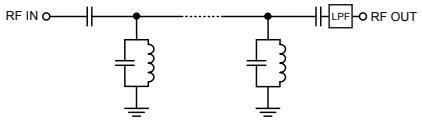
Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency			—	942	—	MHz
	Insertion Loss	F1-F2	875-1010	—	1.1	2.5	dB
	VSWR	F1-F2	875-1010	—	—	1.9	:1
Stop Band, Lower	Insertion Loss	DC-F5	0.3-690	40	—	—	dB
		F5-F3	690-750	20	—	—	dB
	VSWR	DC-F3	0.3-750	—	30	—	:1
Stop Band, Upper	Insertion Loss	F4-F6	1160-1250	20	—	—	dB
		F6-F7	1250-1300	40	—	—	dB
		F7-F8	1300-6800	—	20	—	dB
	VSWR	F4-F8	1160-6800	—	10	—	:1

Typical Frequency Response



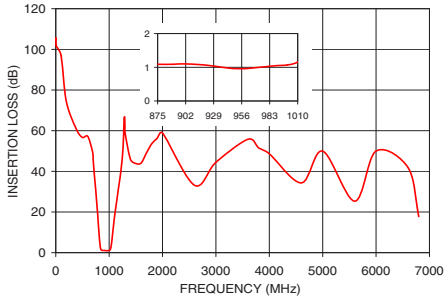
Functional Schematic



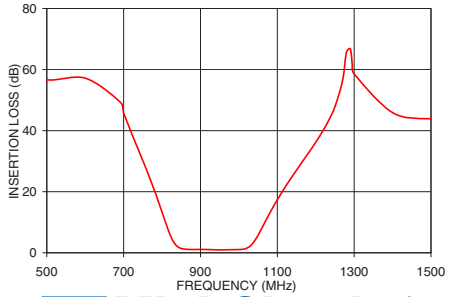
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR-IN (:1)	VSWR-OUT (:1)
0.3	104.61	1737.18	1737.18
100.0	96.86	579.06	289.53
500.0	56.65	72.39	28.49
690.0	49.47	57.91	26.33
750.0	30.16	49.64	25.56
830.0	3.57	3.64	3.34
875.0	1.09	1.23	1.21
900.0	1.10	1.40	1.34
920.0	1.07	1.39	1.34
945.0	0.97	1.17	1.15
980.0	1.02	1.18	1.18
1010.0	1.16	1.16	1.21
1040.0	3.74	3.90	3.50
1160.0	28.88	42.38	16.11
1210.0	38.15	48.26	16.41
1230.0	42.47	51.10	16.41
1250.0	47.87	52.65	16.41
1900.0	56.26	62.05	19.32
5000.0	49.93	12.44	43.44
6800.0	17.75	3.04	16.72

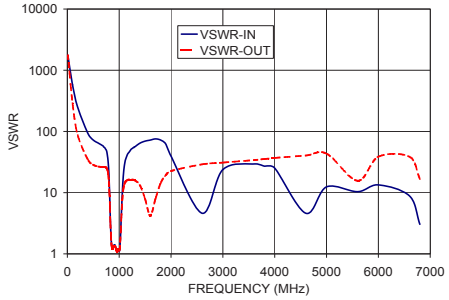
ZX75BP-942+
INSERTION LOSS



ZX75BP-942+
INSERTION LOSS



ZX75BP-942+
VSWR



For detailed performance specs & shopping online see web site