

Coaxial High Pass Filter

ZX75HP-260-S+

50Ω 300 to 2200 MHz

The Big Deal

- Low insertion loss
- High rejection
- Connectorized package



Generic photo used for illustration purposes only

CASE STYLE: KE1467

Product Overview

ZX75HP-260-S+ is a High pass filter in a rugged connectorized package covering 300 to 2200 MHz. This filter will find its application in TV Broadcast, point-to-point military radio and cordless telephones. It has repeatable performance across production lots and consistent performance across temperature.

Key Features

Feature	Advantages
Low insertion loss	Can be used in high performance applications.
Good rejection	This enables the filter to attenuate spurious signals and reject harmonics for broad band frequency.
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups.

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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Coaxial High Pass Filter

50Ω 300 to 2200 MHz

ZX75HP-260-S+



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CASE STYLE: KE1467

Connectors	Model
SMA-MF	ZX75HP-260-S+

Features

- Wide band, 300 MHz to 2200 MHz
- High rejection
- Connectorized package

Applications

- TV Broadcast
- Point-to-point military radio
- Cordless telephones

Electrical Specifications at 25°C

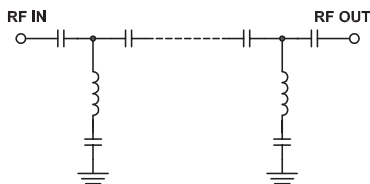
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	DC-184	20	30	-
	VSWR	DC-F1	DC-184	-	86	-
Pass Band	Insertion Loss	F2-F3	300-2200	-	0.7	1.5
	VSWR	F2-F3	300-2200	-	1.4	-

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W.

Permanent damage may occur if any of these limits are exceeded.

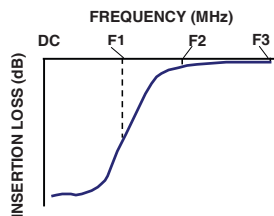
Functional Schematic



Typical Performance Data at 25°C

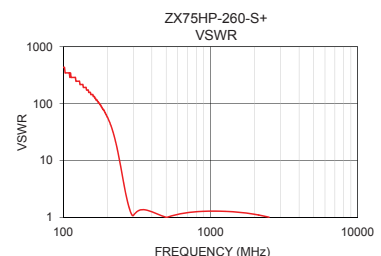
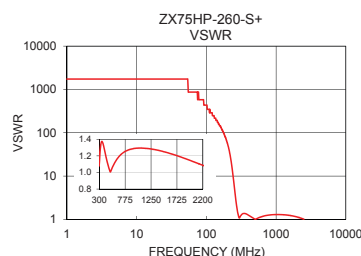
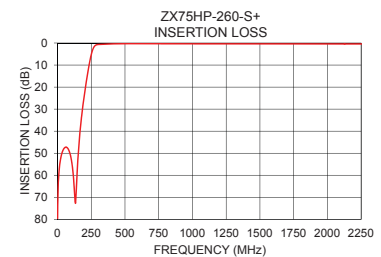
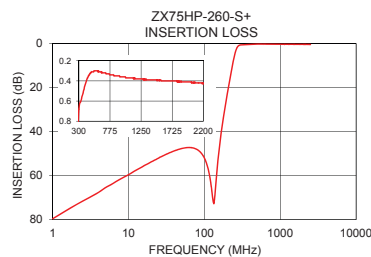
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1	79.60	1737.18
9	60.44	1737.18
109	55.44	347.44
136	70.81	217.15
168	39.65	115.81
184	30.60	82.73
218	15.88	31.60
242	7.56	9.69
260	3.21	3.52
272	1.66	2.01
300	0.68	1.09
350	0.55	1.37
415	0.40	1.21
490	0.31	1.03
740	0.33	1.24
1165	0.38	1.29
1825	0.41	1.18
2020	0.42	1.13
2070	0.41	1.12
2200	0.42	1.09

Typical Frequency Response



+RoHS Compliant

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



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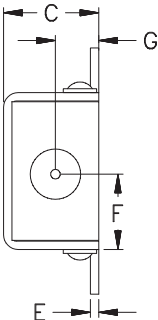
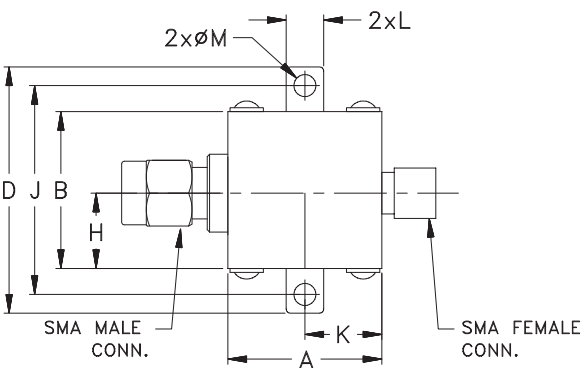
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Coaxial Connections

INPUT	SMA-Male
OUTPUT	SMA-Female

Outline Drawing



Outline Dimensions (inch mm)

A	B	C	D	E	F	G
.74	.75	.46	1.18	.04	.362	.21
18.80	19.05	11.68	29.97	1.02	9.19	5.33
H	J	K	L	M		Wt.
.362	1.00	.37	.18	.11		grams
9.19	25.40	9.40	4.57	2.79		24.4

Note: Please refer to case style drawing for details

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Typical Performance Data

FREQ.	INSERTION LOSS			INPUT RETURN LOSS			OUTPUT RETURN LOSS		
(MHz)	(dB)			(dB)			(dB)		
	@-40°C	@+25°C	@+85°C	@-40°C	@+25°C	@+85°C	@-40°C	@+25°C	@+85°C
1	79.93	79.60	79.89	0.00	0.00	0.00	0.00	0.00	0.01
3	69.88	70.10	69.80	0.00	0.00	0.00	0.00	0.00	0.00
6	63.93	63.94	64.02	0.00	0.00	0.00	0.00	0.00	0.00
10	59.67	59.59	59.50	0.00	0.00	0.00	0.00	0.00	0.00
16	55.63	55.53	55.60	0.01	0.00	0.01	0.00	0.00	0.00
24	52.34	52.33	52.34	0.01	0.01	0.01	0.00	0.00	0.00
30	50.70	50.65	50.66	0.01	0.01	0.01	0.00	0.01	0.01
43	48.45	48.42	48.43	0.01	0.02	0.02	0.01	0.01	0.01
73	47.62	47.56	47.54	0.02	0.03	0.04	0.02	0.02	0.03
85	48.81	48.80	48.77	0.03	0.04	0.05	0.02	0.03	0.03
96	50.97	50.92	50.91	0.04	0.05	0.06	0.03	0.04	0.04
104	53.36	53.37	53.41	0.05	0.06	0.07	0.03	0.05	0.05
112	56.93	56.95	57.01	0.06	0.08	0.09	0.04	0.05	0.06
120	62.05	62.17	62.33	0.07	0.09	0.10	0.05	0.06	0.07
126	67.43	67.68	67.82	0.08	0.10	0.11	0.05	0.07	0.08
132	71.88	72.18	72.77	0.09	0.11	0.12	0.06	0.08	0.09
139	67.73	67.13	66.90	0.10	0.13	0.14	0.07	0.09	0.10
145	60.09	59.67	59.23	0.11	0.14	0.16	0.07	0.10	0.11
151	53.44	53.06	52.69	0.12	0.16	0.17	0.08	0.11	0.12
159	46.29	46.02	45.74	0.14	0.18	0.20	0.09	0.12	0.14
164	42.56	42.33	42.08	0.16	0.20	0.22	0.11	0.14	0.16
170	38.58	38.38	38.16	0.18	0.22	0.24	0.12	0.15	0.17
181	32.26	32.14	31.97	0.22	0.26	0.29	0.16	0.19	0.22
184	30.71	30.60	30.44	0.24	0.28	0.31	0.17	0.21	0.23
190	27.76	27.67	27.54	0.27	0.32	0.35	0.19	0.23	0.27
198	24.08	24.04	23.93	0.32	0.38	0.41	0.24	0.29	0.32
206	20.65	20.64	20.56	0.40	0.46	0.50	0.31	0.36	0.40
215	17.02	17.04	16.99	0.53	0.60	0.65	0.43	0.49	0.54
224	13.59	13.64	13.63	0.75	0.84	0.90	0.64	0.71	0.77
232	10.74	10.80	10.82	1.08	1.18	1.26	0.95	1.04	1.12
241	7.80	7.87	7.91	1.73	1.85	1.95	1.58	1.70	1.79
251	5.02	5.10	5.16	3.02	3.21	3.35	2.86	3.03	3.16
259	3.31	3.38	3.46	4.72	5.00	5.18	4.54	4.79	4.96
260	3.14	3.21	3.28	4.98	5.28	5.47	4.80	5.07	5.24
266	2.23	2.30	2.37	6.83	7.24	7.49	6.64	7.01	7.23
274	1.42	1.49	1.57	10.10	10.77	11.16	9.87	10.46	10.81
288	0.75	0.85	0.92	19.15	21.29	22.73	18.71	20.31	21.19
291	0.69	0.78	0.86	22.26	25.40	27.63	21.59	23.56	24.41
296	0.61	0.71	0.79	30.34	36.74	33.37	27.94	28.47	26.92
300	0.57	0.68	0.76	39.29	30.41	26.72	31.48	26.90	24.42
330	0.49	0.60	0.68	18.29	17.11	16.17	17.85	16.65	15.74
360	0.44	0.53	0.60	17.34	16.76	16.01	16.88	16.26	15.55
390	0.38	0.45	0.51	18.68	18.57	17.95	18.15	17.96	17.37
430	0.31	0.37	0.42	22.32	23.07	22.80	21.66	22.20	21.97
500	0.24	0.31	0.35	36.82	38.01	35.75	37.43	48.00	42.74
645	0.23	0.32	0.37	23.25	21.77	20.57	23.19	21.72	20.49
745	0.24	0.33	0.39	21.00	19.74	18.56	20.59	19.34	18.19
805	0.24	0.34	0.41	20.31	19.14	17.88	19.86	18.69	17.46
880	0.25	0.35	0.42	19.98	18.80	17.45	19.33	18.19	16.89
945	0.25	0.36	0.43	19.95	18.65	17.27	19.17	17.95	16.63
1065	0.25	0.37	0.45	20.28	18.59	17.25	19.37	17.83	16.54
1145	0.25	0.38	0.46	20.60	18.67	17.34	19.70	17.93	16.64
1370	0.25	0.39	0.47	21.48	19.14	17.82	20.75	18.52	17.23
1555	0.25	0.40	0.48	22.20	19.94	18.61	21.69	19.47	18.18
1800	0.26	0.41	0.50	24.03	21.62	20.14	23.69	21.43	20.01
1835	0.25	0.40	0.50	24.45	21.96	20.46	24.06	21.80	20.35
1910	0.25	0.41	0.50	25.27	22.75	21.20	24.88	22.64	21.13
2040	0.26	0.42	0.52	26.69	24.39	22.66	26.59	24.47	22.77
2185	0.27	0.43	0.53	30.27	27.18	25.09	29.40	27.32	25.22
2200	0.26	0.42	0.53	30.80	27.60	25.45	29.69	27.68	25.54

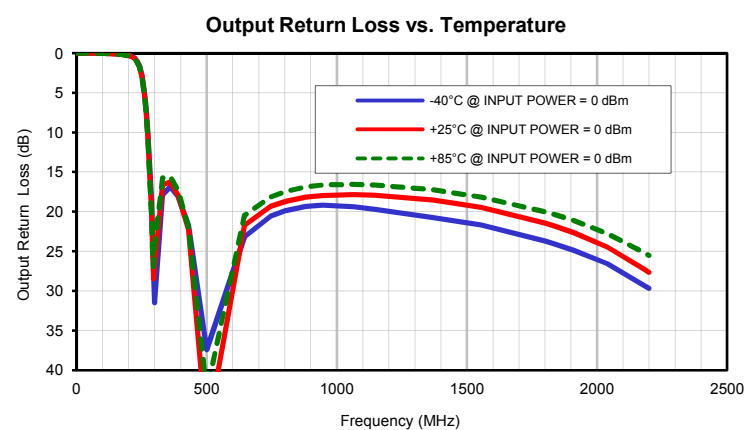
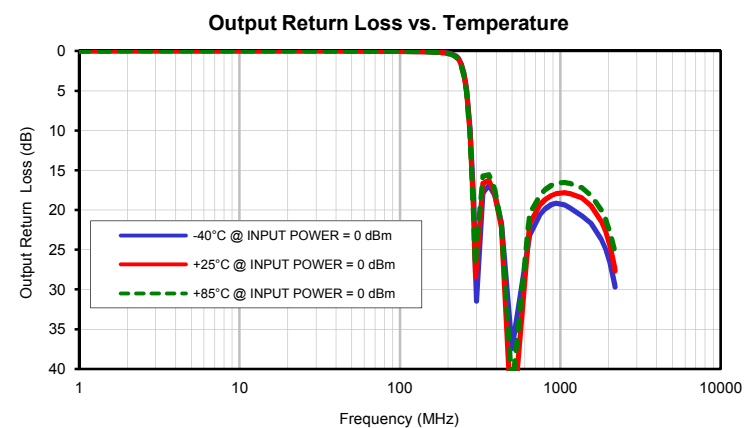
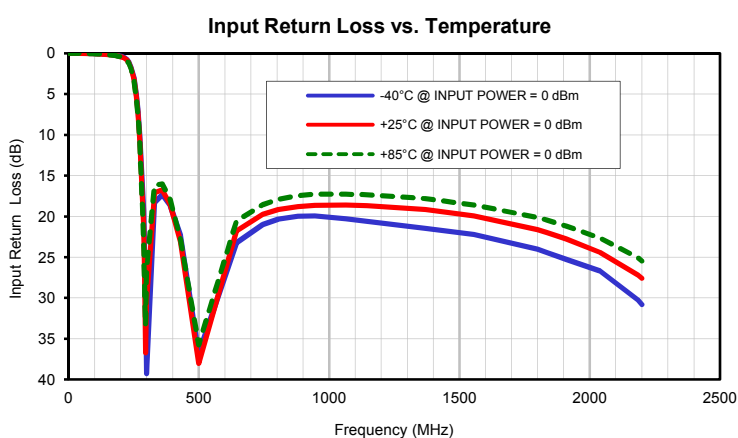
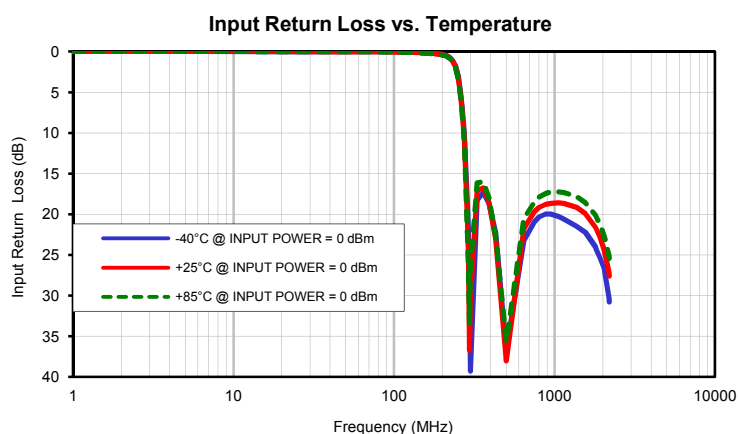
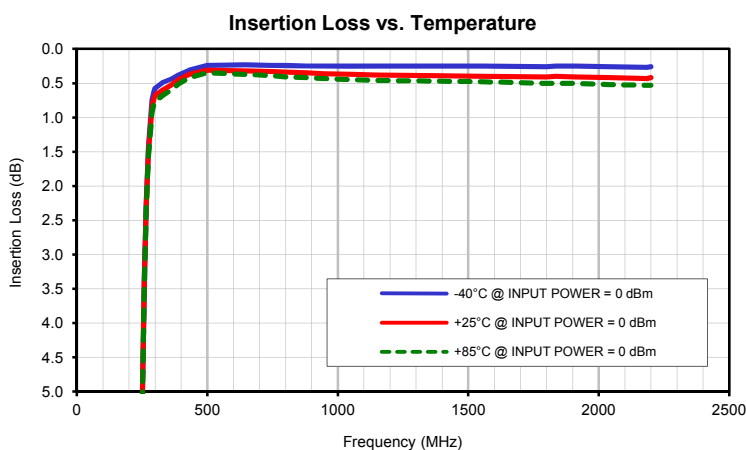
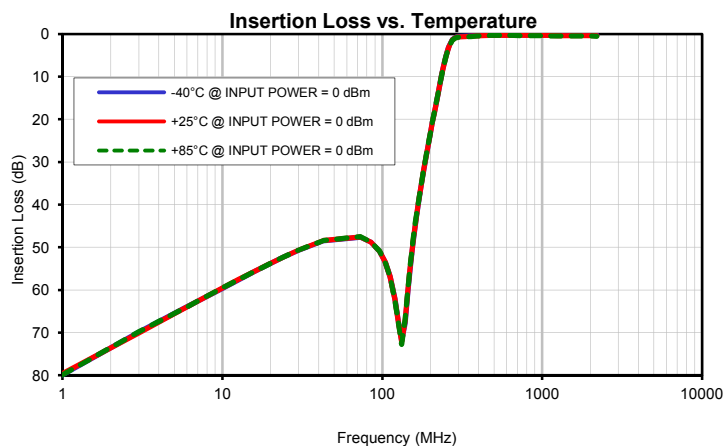
High Pass Filter**ZX75HP-260-S+****Typical Performance Data**

FREQ. (MHz)	GROUP DELAY		
	(nsec)		
	@-40°C	@+25°C	@+85°C
300	3.35	3.32	3.30
310	3.10	3.07	3.04
320	2.82	2.79	2.77
330	2.53	2.51	2.49
340	2.28	2.25	2.23
350	2.08	2.05	2.04
360	1.91	1.89	1.88
370	1.78	1.76	1.75
380	1.66	1.65	1.64
390	1.56	1.55	1.55
400	1.48	1.47	1.47
410	1.41	1.40	1.39
420	1.34	1.33	1.33
430	1.28	1.27	1.27
440	1.22	1.21	1.21
450	1.17	1.17	1.16
460	1.13	1.12	1.12
470	1.08	1.08	1.07
480	1.04	1.04	1.03
490	1.01	1.00	1.00
500	0.98	0.97	0.97
510	0.95	0.94	0.94
520	0.92	0.91	0.91
530	0.89	0.88	0.88
540	0.87	0.86	0.85
550	0.84	0.83	0.83
560	0.82	0.81	0.81
570	0.80	0.79	0.79
580	0.78	0.77	0.77
590	0.76	0.75	0.75
600	0.75	0.74	0.73
610	0.73	0.72	0.72
620	0.71	0.70	0.70
630	0.70	0.69	0.69
640	0.69	0.68	0.67
650	0.67	0.66	0.66
665	0.66	0.65	0.64
680	0.64	0.63	0.63
700	0.62	0.61	0.61
725	0.59	0.58	0.58
760	0.57	0.56	0.56
800	0.54	0.53	0.53
865	0.51	0.50	0.50
925	0.48	0.47	0.47
980	0.46	0.45	0.45
1030	0.45	0.44	0.44
1135	0.43	0.42	0.41
1295	0.40	0.39	0.39
1445	0.39	0.38	0.37
1520	0.38	0.37	0.37
1555	0.38	0.37	0.37
1710	0.37	0.36	0.36
1800	0.37	0.36	0.35
1900	0.36	0.35	0.35
1980	0.36	0.35	0.35
2025	0.35	0.34	0.34
2105	0.36	0.35	0.34
2170	0.35	0.34	0.34
2195	0.35	0.35	0.34
2200	0.35	0.34	0.34

High Pass Filter

ZX75HP-260-S+

Typical Performance Curves



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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com



IF/RF MICROWAVE COMPONENTS

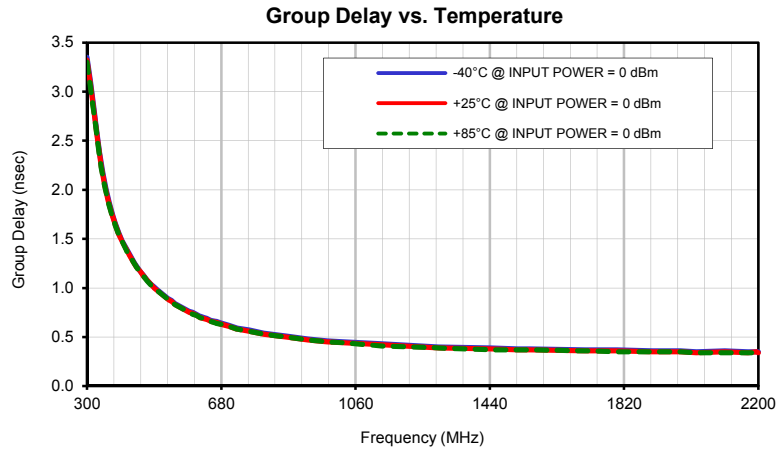


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High Pass Filter

ZX75HP-260-S+

Typical Performance Curves



Outline Dimensions



CASE #.	A	B	C	D	E	F	G	H	J	K	L	M
KE1467	.74 (18.80)	.75 (19.05)	.46 (11.68)	1.18 (29.97)	.04 (1.02)	.362 (9.19)	.21 (5.33)	.362 (9.19)	1.00 (25.40)	.37 (9.40)	.18 (4.57)	.11 (2.79)

CASE #.	WT. GRAM
KE1467	24.4

Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .03$; 3Pl. $\pm .015$

Tolerance on hole size and interaxes dimensions to be $\pm .005$.

Note:

1. Case material: Brass
2. Case finish: Gold
3. Cover: Nickel plated.



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All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85°C	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I