

Microwavefilters® &

Microwave components for telecommunication systems

Two Dual Filters
1601 MHz (BW=48/60 & 96/128 MHz)
& 2250 MHz (BW=48/60 & 96/128 MHz)



**compact,
low loss and
small group delay**

Two transmission zeros to increase rejection
Very Stable over Temperature (-20 °C ÷ 65 °C)

Microwavefilters & TVC srl

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MW&TVC presents a new device composed of two dual filters, each in its housing. One dual filter has $f_0=1601$ MHz and BW=48 MHz & 96 MHz (ETSI standard) or BW=60 MHz & 128 MHz (ANSI standard). The other dual filter has $f_0=2250$ MHz and BW=48 MHz & 96 MHz (ETSI standard) or BW=60 MHz & 128 MHz (ANSI standard). The two dual filters are held together through two mounting brackets, so that the whole device is composed of 4 bandpass filters.

Dimensions are small (72x40x48 mm for $f_0=2250$ MHz and 72x40x62 mm for $f_0=1601$ MHz, in both cases excluding tuning screws, see total dimensions of the device on the last page of this document). All filters have two transmission zeros, one above and the other below the passband.

Main Characteristics (P/N MK-F01622ACCT) – ANSI Standard

<u>Dual Filter 2250 MHz</u>	Filter 1	Filter 2
Center Frequency (MHz)	2250	2250
Equi-ripple bandwidth(MHz)	+/- 30 MHz	+/- 64 MHz
Passband ripple (dB)	0.1	0.1
Return Loss (dB)	20	20
Insertion Loss (dB)	<1	<0.5
Group delay (nsec)	<18 at F_0	<9 at F_0
Stopband rejection	20 dB @ 45 MHz offset and 40 dB @ 60 MHz offset.	35 dB @ 140 MHz offset and 40 dB @160 MHz offset.
Connectors	SMA	SMA
Temperature Range (deg C)	-20 to 65	-20 to 65
Temperature Stability ppm/deg C	+/- 3	+ - 3
Dimensions (mm)	72 x 40 x 48	72 x 40 x 48

<u>Dual Filter 1601 MHz</u>	Filter 1	Filter 2
Center Frequency (MHz)	1601	1601
Equi-ripple bandwidth(MHz)	+/- 30 MHz	+/- 64 MHz
Passband ripple (dB)	0.1	0.1
Return Loss (dB)	20	20
Insertion Loss (dB)	<1	<0.5
Group delay (nsec)	<18 at F_0	<9 at F_0
Stopband rejection	20dB @ 45 MHz offset and 40 dB @ 60 MHz offset.	35 dB @ 140 MHz offset and 40 dB @160 MHz offset.
Connectors	SMA	SMA
Temperature Range (deg C)	-20 to 65	-20 to 65
Temperature Stability ppm/deg C	+/- 3	+ - 3
Dimensions (mm)	72 x 40 x 62	72 x 40 x 62

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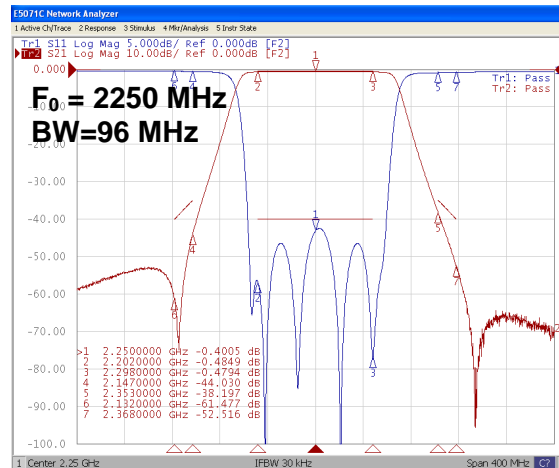
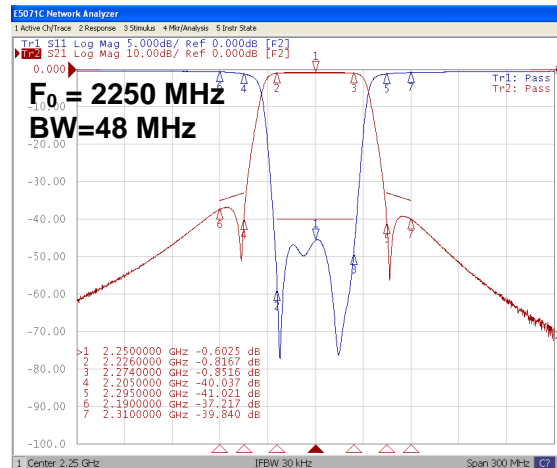
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Main Characteristics (P/N MK-F01622ACCT) – ETSI Standard

Dual Filter 2250 MHz	Filter 1	Filter 2
Center Frequency (MHz)	2250	2250
Equi-ripple bandwidth(MHz)	+/- 24 MHz	+/- 48 MHz
Passband ripple (dB)	0.1	0.1
Return Loss (dB)	20	20
Insertion Loss (dB)	<1	<0.5
Group delay (nsec)	<18 at Fo	<9 at Fo
Stopband rejection	33dB @ 45 MHz offset and 35 dB @ 60 MHz with monotonically increasing rejection outside this range,	35 dB @ 103 MHz offset and 40 dB @118 MHz offset. No stop poles.
Connectors	SMA	SMA
Temperature Range (deg C)	-35 to 65	-35 to 65
Temperature Stability ppm/deg C	+/- 3	+ - 3
Dimensions (mm)	72 x 40 x 48	

Dual Filter 1601 MHz	Filter 1	Filter 2
Center Frequency (MHz)	1601	1601
Equi-ripple bandwidth(MHz)	+/- 24 MHz	+/- 48 MHz
Passband ripple (dB)	0.1	0.1
Return Loss (dB)	20	20
Insertion Loss (dB)	<1	<0.5
Group delay (nsec)	<18 at Fo	<9 at Fo
Stopband rejection	33dB @ 45 MHz offset and 35 dB @ 60 MHz with monotonically increasing rejection outside this range,	35 dB @ 103 MHz offset and 40 dB @118 MHz offset. No stop poles.
Connectors	SMA	SMA
Temperature Range (deg C)	-35 to 65	-35 to 65
Temperature Stability ppm/deg C	+/- 3	+ - 3
Dimensions (mm)	72 x 40 x 62	

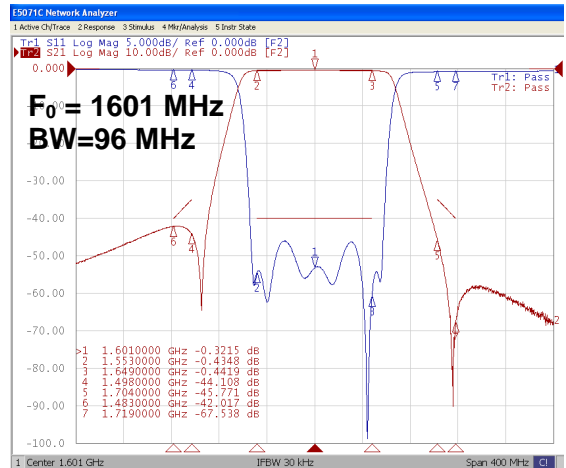
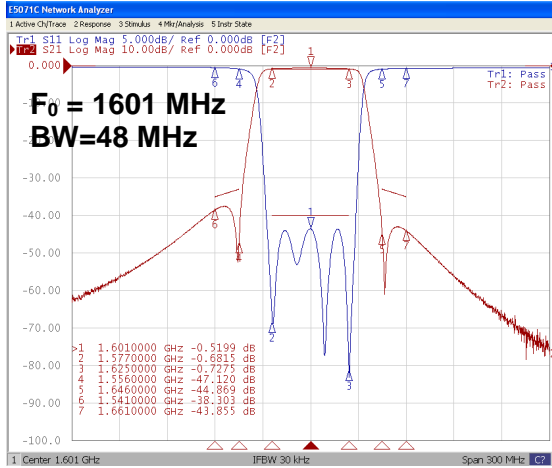
Typical Frequency Responses (ETSI)



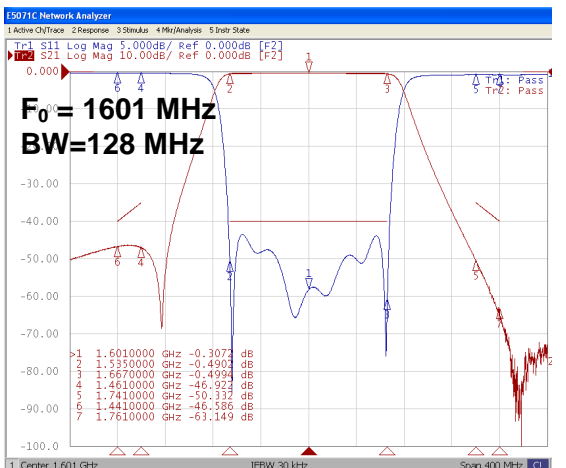
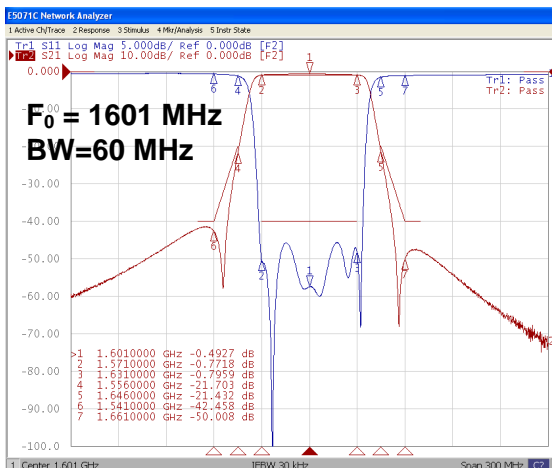
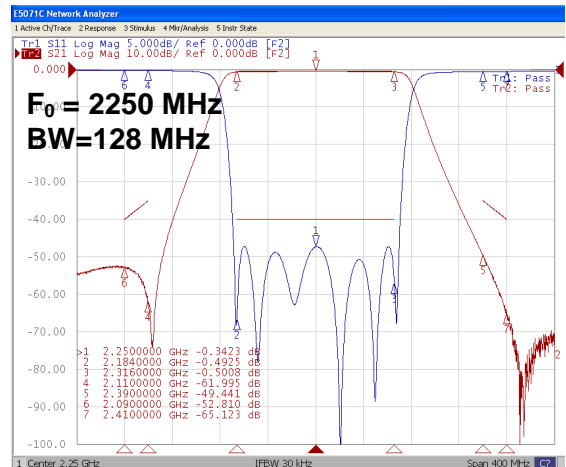
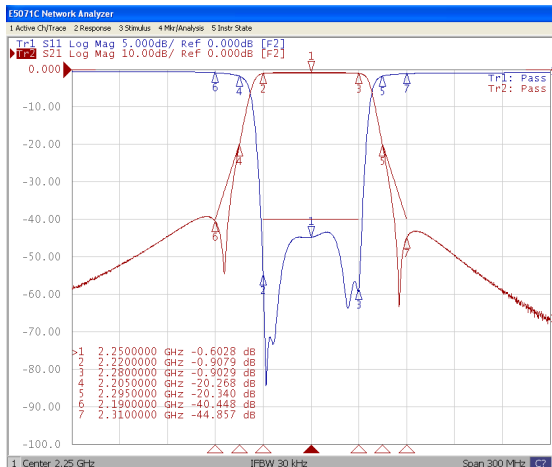
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Typical Frequency Responses (ETSI)



Typical Frequency Responses (ANSI)



Mechanical Outline

– same for MK-F01622ACCT (ANSI std) & MK-F01622CCCT (ETSI std)

