

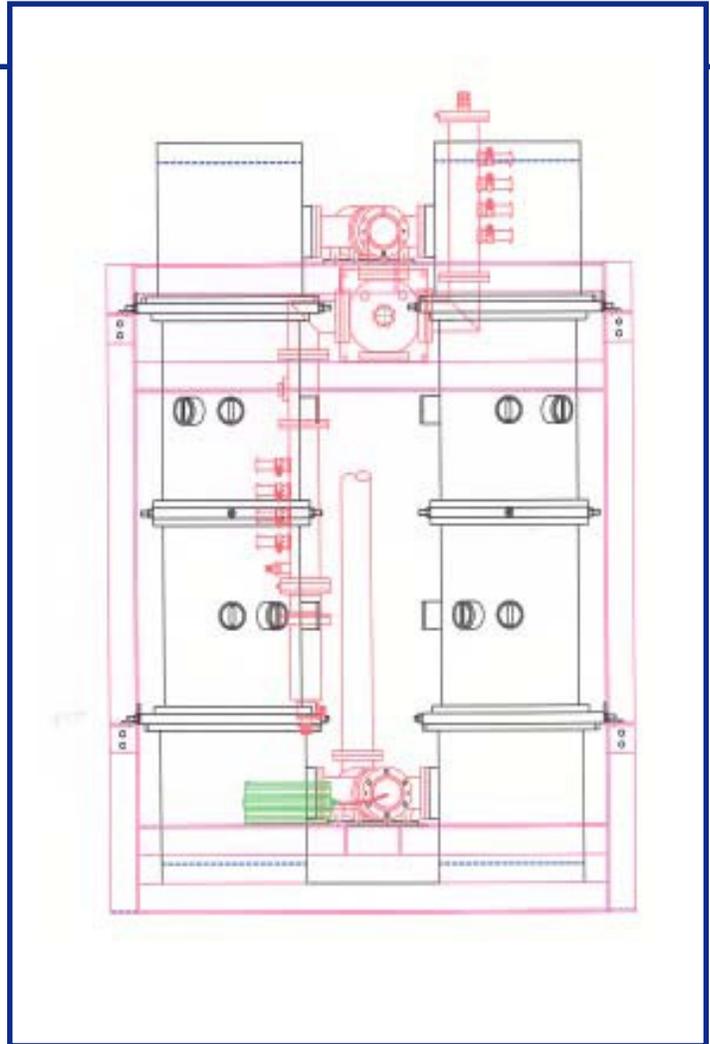
# HIGH/MEDIUM POWER UHF DTV MASK FILTERS

- Unconditional FCC mask compliance
- Transmitter spectrum protection
- Versatile packaging
- Custom responses are standard
- Thermally Stable

MCI High Power DTV Mask Filters are constructed using two waveguide hybrids; two waveguide bandpass filters and a high power load, all optimized in a constant impedance configuration. The constant impedance design protects the integrity of the transmitter spectrum by eliminating re-amplification of out of band products. For medium power applications, MCI uses the same high quality, ultra-stable waveguide bandpass filters with space saving coaxial hybrids.

Each bandpass filter can be supplied in thermally stable invar or thermally adjusted aluminum for guaranteed mask compliance regardless of applied power and ambient temperature conditions. Cooling fans are typically not required at this power level.

MCI tunes each filter to the exact needs of your chosen transmitter. The resulting custom response ensures



*MCI Medium Power DTV Mask Filter  
in optional floor mount configuration*

guaranteed mask compliance without imparting unnecessary losses and group delay variations typical with over-filtering.

Available in both ceiling hung and floor mounted standard configurations, MCI DTV filters may also be custom designed to meet your particular mechanical requirements in spatially-challenged situations. Never say it cannot be done until you ask MCI!



Micro Communications, Inc.  
Microwave A MICROWAVE TECHNIQUES COMPANY

**SERIES 41700**  
**UHF HIGH POWER CONSTANT IMPEDANCE DTV MASK FILTER**

<b>SPECIFICATIONS</b>	
VSWR:	1.06 over channel
Frequency:	UHF band (specify channel)
Insertion Loss *:	0.5 dB @ $F_c \pm 2.69$ MHz .036 dB @ $F_c$
Rejection:	As required by transmitter
Isolation: to reject	-20 dB or more
Isolation: to ballast	-30 dB or more
Connections:	Coax or Waveguide
Operating Ambient Temperature:	-30° C to + 50° C (-22°F to + 122°F)
Normal Filter Operating Temperature:	Ambient to 150°F (65°C) (varies with input powers)

\*Insertion loss for channel 40, other channels vary proportionately with frequency.

		<b>UHF</b>		
FREQUENCY (MHz)		470-494	494-686	686-860
CHANNEL RANGE		14-17	18-49	50-69
MODEL		41729	41728	41727
INPUT/OUTPUT FLANGE		WR 1800	WR 1500	WR 1150
POWER (AVG.)		200 kW	160 kW	120 kW
SIZE	ft	21x5x3	19x5x2	17x4x2
	(m)	(6.4x1.5x0.9)	(5.8x1.5x0.6)	(5.2x1.2x0.6)
WEIGHT	lbs	1200	1050	900
	(kg)	(544)	(476)	(408)
MODEL		41739	41738	41737
INPUT/OUTPUT FLANGE		Coax	Coax	Coax
POWER (AVG.)		Full Coax Rating	Full Coax Rating	Full Coax Rating
SIZE	ft	10x4x4	10x3x3	8x3x3
	(m)	(3.9x0.9x0.9)	(3.3x0.9x0.6)	(2.7x0.9x0.6)
WEIGHT	lbs	800	750	600
	(kg)	(362)	(340)	(272)

All specifications are subject to change without notice.

**Options available:** Wattmeter, Couplers, Fine Matchers, Output A/B switch, and Test Load.

**NOTE:**

The output side “ballast load” may be removed to provide non-adjacent channel combining operation. Specification for second channel: 1.05 VSWR, 0.15 dB Insertion Loss.



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