



Micro Communications, Inc.

SERIES 41700

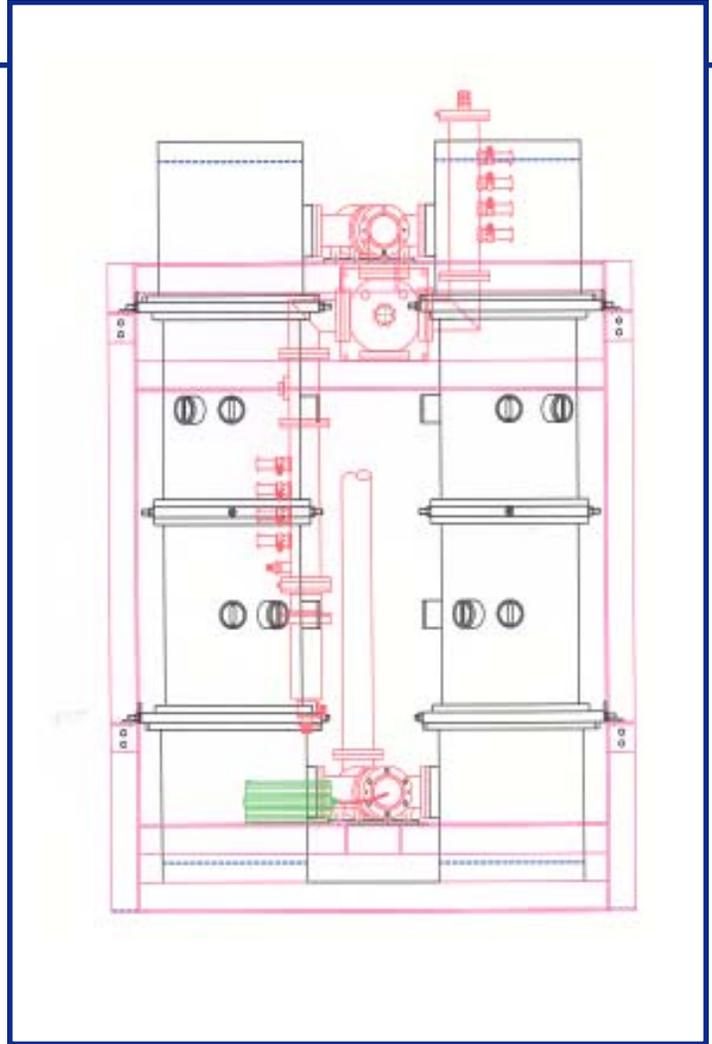
HIGH/MEDIUM POWER UHF DTV MASK FILTERS

- 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!



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SERIES 41700
UHF HIGH POWER CONSTANT IMPEDANCE DTV MASK FILTER

| SPECIFICATIONS | |
|--------------------------------------|---|
| 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.

| | UHF | | | |
|---------------------|------------------|------------------|------------------|---------|
| | 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 (m) | ft (m) | ft (m) | |
| WEIGHT | lbs (kg) | lbs (kg) | lbs (kg) | |
| MODEL | 41739 | 41738 | 41737 | |
| INPUT/OUTPUT FLANGE | Coax | Coax | Coax | |
| POWER (AVG.) | Full Coax Rating | Full Coax Rating | Full Coax Rating | |
| SIZE | ft (m) | ft (m) | ft (m) | |
| WEIGHT | lbs (kg) | lbs (kg) | lbs (kg) | |

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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