

## WAVEGUIDE HARMONIC FILTERS

- High Power
- High Rejection
- Low Loss
- Low VSWR
- Unique Design

MCI's UHF waveguide harmonic filters are designed for use in all UHF systems. A new synthesis technique is used in the design of the corrugated waveguide low pass filters. This new synthesis method provides filters that can be constructed directly from dimensions calculated by a computer program. This reduces the amount of "fine tuning" for each individual filter and eliminates any major adjustments.

This new technique provides for a filter with high rejection at the 2<sup>nd</sup> and 3<sup>rd</sup> harmonics. The filters are available in three standard waveguide sizes. Standard length filters provide better than 40dB of rejection. Lower rejection (20dB) filters can be manufactured in a shorter length, and must be ordered per application.

High Rejection (100) dB @ 2<sup>nd</sup> are also available.

Fundamental				
VSWR:	<1.06:1			
Insertion Loss:	0.10 dB			
2 <sup>nd</sup> Harmonic Rejection:*	> 40 dB			
3 <sup>rd</sup> Harmonic Rejection:*	> 30 dB			
* Rejection at $2(F_v \& F_a)$				
$3(F_v \& F_a)$				
or @ Band for DTV Applications				

		UHF		
FREQUENCY (MHz)		470-536	536-680	650-800
CHANNEL		14-24	24-48	44-69
MODEL		44119	44118	44117
POWER		240 kW	240 kW	240 kW
LENGTH	in	60	53	53
	(cm)	(152.40)	(134.62)	(134.62)
WEIGHT	lbs	180	120	100
	(kg)	(81.65)	(54.43)	(45.36)
W/G SIZE		WR1800	WR1500	WR1150

All specifications are subject to change without notice.

