Micro Communications, Inc.

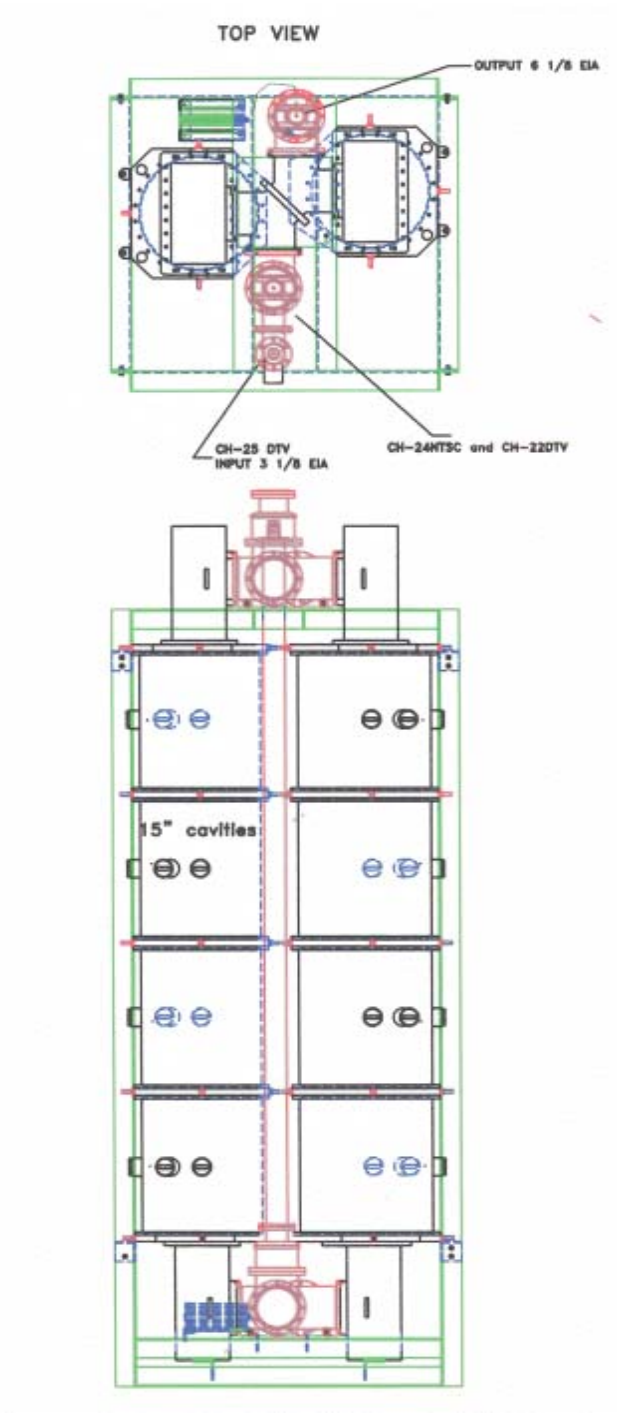
DTV/DTV ADJACENT CHANNEL COMBINER

- Allows use of Single Antenna
- Low Insertion Loss
- Excellent Rejection
- Temperature Stable Design
- Proven Performance

MCI's DTV/DTV Adjacent Channel Combiner is a constant impedance device using 8th order dual mode bandpass filters and 3dB broadband hybrids. The dual mode bandpass filters provide excellent near in rejection required for adjacent channel combining along with a very low loss passband.

The channels are combined using the traditional method of constant impedance channel combining. In this configuration the bandpass filters are placed between a pair of 90-degree hybrids.

One of the DTV signals is filtered for unwanted, out-of-band products, while the other DTV channel is reflected by filters, resulting in a combined DTV/DTV multiplex to the common antenna port.



DTV/DTV Adjacent Channel Combiner

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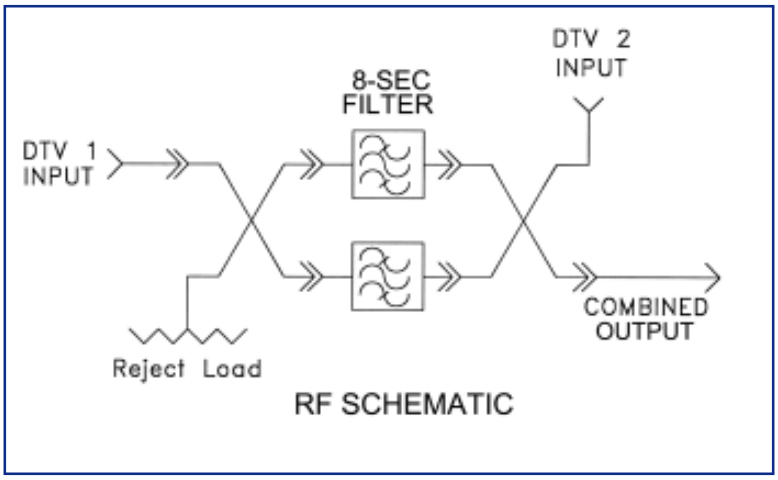
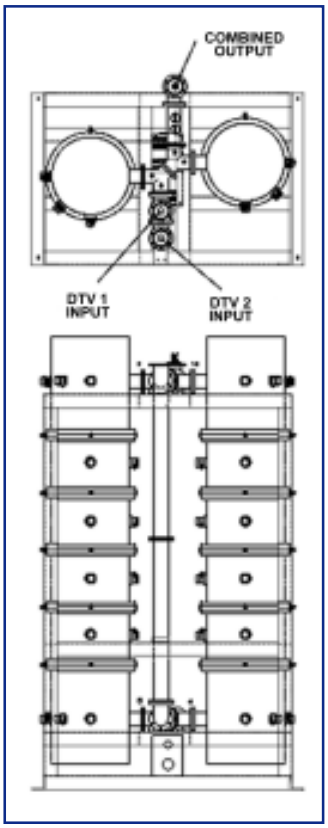
DTV 1 Narrow Band Input	
Insertion Loss:	0.25 dB at channel center F_c 0.50 dB at DTV_1 band edges
Group Delay Variation:	500 ns across DTV_1usable band
VSWR:	1.12:1 across DTV_1 band
Isolation:	> 30 dB DTV_1 to DTV_2

DTV 2 Wideband Input	
Insertion Loss:	0.06 dB at channel center F_c 0.50 dB at DTV_2 band edge
Group Delay Variation:	600 ns across DTV_2 usable band
VSWR:	1.16:1 across DTV_2 band
Isolation:	> 30 dB DTV_2 to DTV_1

Data is typical and will vary slightly from actual performance



RF SCHEMATIC



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