

Channel Converters

MCX Series



The MCX Series are professional quality, single channel converters. These units are designed to convert a single VHF or UHF channel to a desired output channel (VHF or UHF). These converters feature crystal controlled oscillators for use in adjacent channel systems.

The MCX Series is electrically and mechanically compatible with Blonder Tongue's strip amplifiers and bandpass filters. The MCX Series features single conversion circuitry for channel changes without double conversion or external traps and filters. Some channel conversions are forbidden (refer to the chart and/or consult the BT sales department) and require the double conversion process used in Blonder Tongue's heterodyne processors. These converters utilize a balanced mixer design and a highly stable crystal oscillator, thereby allowing operation in adjacent channel headends. The MCX Series offers excellent image rejection.

Specifications

| RF | MCX-V | MCX-V/U |
|-------------------------------------|--------------------|--------------------|
| Frequency Range | | |
| Input MHz: | 5-300 | 50-300 |
| Output MHz: | 5-300 | 470-806 |
| Flatness dB: | 0.5 | 0.5 |
| Input Signal Level | | |
| Minimum dBmV: | -3.5 | -4.5 |
| Recommended dBmV: | +22 | +22 |
| Frequency Stability - Max. dBmV: | ±25 | ±25 |
| Selectivity ±9 MHz: | -45 | -26 |
| Spurious Outputs-L.O. Related dBmV: | -20 | -60 |
| Image Rejection dB: | -55 | -55 |
| Hum Modulation dB: | -54 | -70 |
| Impedance - All Ports Ohm: | 75 | 75 |
| Return Loss | | |
| Input dB: | 16 | 16 |
| Output dB: | 18 | 18 |
| General | | |
| Power Requirements | | |
| Voltage VAC: | 117, ±10% | 117, ±10% |
| Frequency Hz: | 60 | 60 |
| Fuse A: | 1/8 | 1/8 |
| Temperature Range °C: | -20 to +50 | -20 to +50 |
| Mechanical | | |
| Dimensions (WxHxD) | | |
| in: | 19.0 x 1.75 x 5.13 | 19.0 x 1.75 x 5.13 |
| mm: | 483 x 44 x 130 | 483 x 44 x 130 |
| Weight | 5.0 lbs, 2.27 kg. | 5.0 lbs, 2.27 kg. |
| Connectors (Front Panel) | | |
| RF Input & Output: | "F" Type, Female | "F" Type, Female |
| Indicators (Front Panel) | | |
| Power ON: | Neon Bulb | Neon Bulb |

Ordering Information

| Model | Stock No. | Description |
|-----------|-----------|--|
| MCX-V/U ✱ | 1459 | Channel Converter 50-300 MHz (VHF), 470-806 MHz (UHF) |
| MCX-V | 1448 | Channel Converter 5-300 MHz (SUB/VHF), 5-300 MHz (SUB/VHF) |

Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- High Input Capability with Low Noise Figure Provides Wide Dynamic Range
- Crystal Controlled Design Permits Use in Adjacent Channel Systems
- Excellent Image Rejection

| Forbidden Conversions MCX-V | | Forbidden Conversions MCX-V/U | |
|--------------------------------|-------------------------|----------------------------------|----------------|
| VHF INPUT | VHF OUTPUT | VHF INPUT | VHF OUTPUT |
| 2 | 3,6,21,22,7 | 14 | 20,25,26,27 |
| 3 | 2,4,5,6,14,15,8,9 | 15 | 20,26,27 |
| 4 | 3,5,16,17,11,12 | 16 | 20,21,26,27,28 |
| 5 | 3,4,6,15,19,20,21,26,27 | 17 | 21,27,28 |
| 6 | 2,3,5,17,21,22,7,29 | 18 | 21,27,28,29 |
| 14 | 3,5,14-22 | 19 | 21,22,28,29 |
| 15 | 3,5,6,14-22,10,13 | 20 | 22,28,29,30 |
| 16 | 4,14-22 | 21 | 22,29,30 |
| 17 | 5,6,14-22,7 | 22 | 22,7,29,30,31 |
| 18 | 14-22,7,9,10 | 23 | 7,30,31 |
| 19 | 14-22,25 | 24 | 7,30,31,32 |
| 20 | 5,14-22,8,9,10,13 | 25 | 7,8,31,32 |
| 21 | 2,5,6,14-22,9,11,25 | 26 | 8,31,32,33 |
| 22 | 2,6,14-22,7-10,13 | 27 | 8,32,33 |
| 7 | 8,12 | 28 | 8,9,32,33,34 |
| 8 | 3,7,9,11 | 29 | 9,33,34 |
| 9 | 3,8,10 | 30 | 9,33,34,35 |
| 10 | 9,11 | 31 | 9,10,34,35 |
| 11 | 8,10,12 | 32 | 10,34,35,36 |
| 12 | 7,11,13 | 33 | 10,35,36 |
| 13 | 12,23 | 34 | 10,11,35,36 |
| 23 | 4,13,23-36 | 35-36 | 11,36 |
| 24 | 10,23-36 | 37 | 11,12 |
| 25 | 9,10,23-36 | 38-39 | 12 |
| 26 | 9,23-36 | 40 | 12,13 |
| 27 | 5,9,10,13,23-36 | 41-42 | 13 |
| 28 | 6,9,23-36 | 43 | 13,23 |
| 29 | 8,23-36 | 44-45 | 23 |
| 30 | 23-36 | 46 | 23,24 |
| 31 | 23-36 | 47-48 | 24 |
| 32 | 6,10,23-36 | 49 | 24,25 |
| 33 | 23-36 | 50-51 | 25 |
| 34 | 9,13,23-36 | 52 | 25,26 |
| 35 | 23-36 | 53-54 | 26 |
| 36 | 2,3,413,23-36 | 55 | 26,27 |
| T7 | Consult Factory | 56-57 | 27 |
| T8 | Consult Factory | 58 | 27,28 |
| T9 | Consult Factory | 59-60 | 28 |
| T10 | Consult Factory | 61 | 28,29 |
| T11 | Consult Factory | 62-63 | 29 |
| T12 | Consult Factory | 64 | 29,30 |
| T13 | Consult Factory | 65-66 | 30 |
| | | 67 | 30,31 |
| | | 68-69 | 31 |

Headend