

Agile Audio/Video Demodulator

ZDM-806



○ Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- Agile Demodulator
- LED Display for Easy Channel Selection
- Superior Performance, Broadcast Applications

The ZDM-806 is an agile audio/video demodulator. The ZDM-806 can demodulate any single VHF, UHF and CATV channel in the 54 to 806 MHz frequency range. It is ideal for off-air signal processing (audio/video processing and remodulation) or CATV "Cherry Picking" applications. Baseband audio and video are provided as outputs. Agile channel selection is via a front panel LED display and channel up/down buttons. A channel lockout mode is also provided to prevent accidental channel changes.

○ Specifications

RF

Frequency Range: 54-806 MHz
Channels: VHF, UHF, CATV
Input Level - Range: -5 to +30 dBmV
Noise Figure: 8-11 dB
Image Rejection
VHF: 65 dB
UHF: 50 dB
Input/Output Impedance: 75 Ohm

Video

Output Level: 1.0 V p-p
Output Impedance: 75 Ohm

Audio

Output Level: 1.0 V p-p
Impedance - Unbalanced: 600

General

Power Requirements
Voltage: 117, $\pm 10\%$ VAC
Frequency: 60 Hz
Power: 2.5 W
Temperature Range: 0 to +50 °C

Mechanical

Dimensions (WxHxD):
19.0 x 1.75 x 4.00 in
483 x 44 x 102 mm
Weight: 4.00 lbs, 1.82 kg

Connector (Rear Panel)

RF Input: "F" Type, Female
Video Output: "F" Type, Female
Audio Output: RCA Phono, female

Controls (Front Panel)

Channel Selection: Push buttons
Video Level: Control
Audio Level: Control

Indicators (Front Panel)

Power ON: LED, Green
Channel: LED, 7 Segment, 3 Digit

○ Ordering Information

Model	Stock No.	Description
ZDM-806	5880	Agile Audio/Video Demodulator 54-806 MHz UHF/VHF/CATV Input



Combiners

ZHC Series

Headend



○ Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- High Isolation
- -20 dB Test Port

The ZHC Series are professional quality, passive and active output combiners. These units are designed for use in headends to combine the outputs of multiple modulators and processors. The ZHC-12 has twelve (12) broadband input ports and one combined output port. The ZHCA-16c is a 16 port active combiner, providing over all unity gain and is commonly referred to as a "zero loss" combiner.

○ Specifications

	ZHC-12a	ZHCA-16c
RF		
Number of Inputs:	12	16
Frequency Range MHz:	40-1000	54-750
Input Level - Max dBmV:	NA	+57
Output Level - Max dBmV:	NA	+48
Cross Modulation dBc:	NA	-57
Overall Unit Gain dB:	NA	0 to -3
Gain Control Range dB:	NA	9
Insertion Loss dB:	40-450 MHz 17 dB 450-1000 MHz 20 dB	NA
Isolation dB:	30	40
Flatness dB:	3	3
Impedance - All Ports Ohm:	75	75
General		
Power Requirements		
Voltage VAC:	NA	117 ± 10%
Frequency Hz:	NA	60
Power W:	NA	10
Temperature Range °C:	NA	0 to +50
Mechanical		
Dimensions (WxHxD):	19.0 x 1.75 x 2.88 in. 483 x 44 x 73 mm	19.0 x 1.75 x 2.88 in. 483 x 44 x 73 mm
Weight lbs:	2.0 lbs., 0.91 kg.	3.0 lbs., 1.36 kg.
Connectors (Rear Panel)		
RF Input & Output:	"F" Type Female	"F" Type Female
Connectors (Front Panel)		
Test Port:	"F" Type Female	"F" Type Female
Controls (Front Panel)		
Gain:	NA	Control

Refer to product instruction manual for additional specification measurements and notes.

○ Ordering Information

Model	Stock No.	Description
ZHC-12a	5959A	Passive Combiner 40-1000 MHz, 12 Ports
ZHCA-16C-750 ✱	7757	Active Combiner 50-750 MHz, 16 Ports

Channel Converters

MCX-Uz Series



○ Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- UHF to VHF Channel Conversion
- Crystal Controlled PLL Synthesizer Permits Use in Adjacent Channel Systems
- Balanced Mixer Design Provides Maximum Isolation Between Local Oscillator, Input and Output
- Excellent Image Rejection Characteristics

The MCX-Uz is a low cost, professional quality, single channel converter. This unit is designed for use in commercial grade, MATV or SMATV headends. The MCX-Uz features single conversion circuitry for channel changes, eliminating the need for double conversion or external traps and filters. Some channel conversions are forbidden (see chart) and will require the double conversion process used in Blonder Tongue's CAP Series (Channelized Heterodyne Processor) or SAIP Series (Agile Input, Channelized Agile Output Heterodyne Processor). The MCX-Uz converts any UHF channel (470 to 806 MHz) to any VHF channel in the 50 to 216 MHz frequency range (with exceptions). These converters feature crystal controlled PLL synthesizers and a balanced mixer design, thereby allowing operation in adjacent channel systems. The unit is both electrically and mechanically compatible with Blonder Tongue's Low Cost Single Channel VHF Strip Amplifier (ZSCA) and Bandpass Filter (BPF-z).

○ Specifications

RF

Frequency Range
Input: 470-806 MHz
Output: 50-216 MHz
Flatness: 0.8 dB
Input Signal Level
Minimum: -4.0 dBmV
Gain: 20 dB
Gain Control Range: 10 dB
Noise Figure: 9.0 dB
Frequency Stability: ± 15 kHz
Selectivity
 ± 9 MHz: -25 dB
 ± 21 MHz: -50 dB
Spurious Outputs - L.O. Related
At Output: -38 dBmV
At Input: -30 dBmV
Image Rejection: -55 dB
Hum Modulation: -60 dB
Impedance - All Ports: 75 Ohm
Return Loss
Input: 14 dB
Output: 14 dB

General

Power Requirements
Voltage: 117, $\pm 10\%$ VAC
Frequency: 60 Hz
Power: 12 W
Temperature Range: -20 to +50 °C

Mechanical

Dimensions (WxHxD):
19.0 x 1.75 x 2.00 in.
483 x 44 x 51 mm
Weight: 4.0 lbs., 1.82 kg

Connectors (Rear Panel)

RF Input: "F" Type, Female
RF Output: "F" Type, Female

Connectors (Front Panel)

Test Port: "F" Type, Female

Controls (Front Panel)

RF Output Level: Control

Indicators (Front Panel)

Power ON: LED, Green

Refer to product instruction manual for additional specification measurements and notes.

○ Ordering Information

Model	Stock No.	Description
MCX-UZ	1479	Channel Converter 470-806 MHz (UHF), 50-220 MHz (VHF)

FM Strip Amplifier

ZSCA-FM Series

Headend



○ Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- Front Panel Level Controls, Rear AC Convenience Outlet
- Low Noise, High Output Capability VHF Strip Amplifier
- Automatic Gain Control with Wide Dynamic Range
- Adjustable Aural Carrier for Lower Distortion
- Input & Output Test Ports

The ZSCA is a low cost, professional quality, 1 Volt, VHF strip amplifier. This unit is designed to amplify and stabilize the level of a single or multiple FM channel in a MATV or SMATV headend. This strip amplifier offers low noise, high output capability, and a wide AGC window, thereby providing a very stable, low distortion signal.

An integrated diplexer allows combining of alternate channels by looping the strip amplifiers in series. Input and output test ports allow for easy setup and testing without disrupting service. Level control is provided for output level. All controls and test ports are located on the front panel for ease of operation. The unit is both electrically and mechanically compatible with Blonder Tongue's Low Cost Bandpass Filter (BPF-z), Strip Amplifier ZSCA and UHF to VHF Channel Converter (MCX-Uz).

○ Specifications

RF

Frequency Range: 88-108/92-108 MHz
Maximum Output Level: 64 dBmV
Maximum Input Level: 42 dBmV
Minimum Input Level: 12 dBmV
Output Level Range: 15 dB
Gain - Min: 52.0 dB
AGC Range: 30 dB
AGC Stiffness: ± 1 at output dB
Aural Carrier Trap Range: 10 dB
Impedance - All Ports: 75
Input Return Loss: 5.5 dB
Output Return Loss: 5.5 dB

General

Power Requirements
Voltage: 108-120 VAC
Frequency: 60 Hz
Power: 10 W
Fuse: 1/8 A
Temperature Range: 0 to +50 °C

Mechanical

Dimensions (WxHxD):
19.0 x 1.75 x 3.0 in.
483 x 44 x 76 mm
Weight: 4.0 lbs., 1.82 kg

Connectors (Rear Panel)

RF Input: "F" Type, Female
Thru Input: "F" Type, Female
Diplexed Output: "F" Type, Female

Connectors (Front Panel)

Input Test Port: -20 dB "F" Type, Female
Output Test Port: -30 dB "F" Type, Female

Controls (Front Panel)

AGC RF Gain: 15 dB

Indicators (Front Panel)

Power ON: LED, Green

○ Ordering Information

Model	Stock No.	Description
ZSCA-FM	4465	FM Strip Amplifier Low Noise 88-108 MHz Strip Amplifier

Agile FM Stereo Modulator

ZFMSM Series



○ Features & Benefits

- Rack Mountable - 1 EIA (1.75") Rack Space
- High Performance FM Audio Modulator
- Superior Signal to Noise and Audio Separation Performance
- Switchable Mono or Stereo Capability
- Front Panel Level Controls, Rear AC Convenience Outlet
- Rack Mountable - 1 EIA (1.75") Rack Space

The ZFMSM is a low cost, professional quality, agile FM stereo modulator. The unit accepts either monaural or stereo (left & right) inputs and modulates the input to any standard FM channel assignment in the frequency range of 88-108 MHz. Frequency selection is via a front panel up/down switch with a digital display. The ZFMSM modulator retains the frequency setting in the even of power interruption. The modulator can be used in a stand alone configuration or in conjunction with the ZSCA-FM wide band (88-108 MHz) amplifier. An output test port allows for easy setup and testing without disrupting service. All controls and test ports are located on the front panel for ease of operation.

○ Specifications

RF

- Frequency Range: 88-108 MHz
- Frequency Step: 200 KHz
- Output Level - Min: +32 dBmV
- Output Level Adjust: 10 dB
- Frequency Stability: ± 10 KHz
- Audio Input Level
 - Min: 0.2 Vp-p
 - Max: 2.0 Vp-p
- Audio Frequency Range: 30 Hz to 15 kHz
- Audio S/N Ratio: >60 dB
- Audio Separation: >30 dB

General

- Power Requirements
 - Voltage: 120, $\pm 10\%$ VAC
 - Frequency: 60 Hz
 - Power: 10 W
- Temperature Range: 0 to +50 ° C

Mechanical

- Dimensions (WxHxD):
 - 19.0 x 1.75 x 3.01 in
 - 483 x 44 x 121 mm
- Weight: 4 lbs, 1.82 kg

Connectors (Rear Panel)

- Audio Input: L/R "F" Type Female
- RF Output: "F" Type Female
- Test Port: "F" Type Female

Controls (Front Panel)

- Frequency Setting: Up/Down Control
- Aural Modulation Adj.: Control
- RF Output Level: Control

Indicators (Front Panel)

- Power ON: LED, Green
- Frequency Display: 4 Digit LED Screen

○ Ordering Information

Model	Stock No.	Description
ZFMSM	5872	Agile FM Stereo Modulator Agile Low Noise 88-108 MHz Modulator