

CW-3031 FM MODULATOR
CW-3032 FM MODULATOR

for the CCIR FM band

for the OIRT FM band

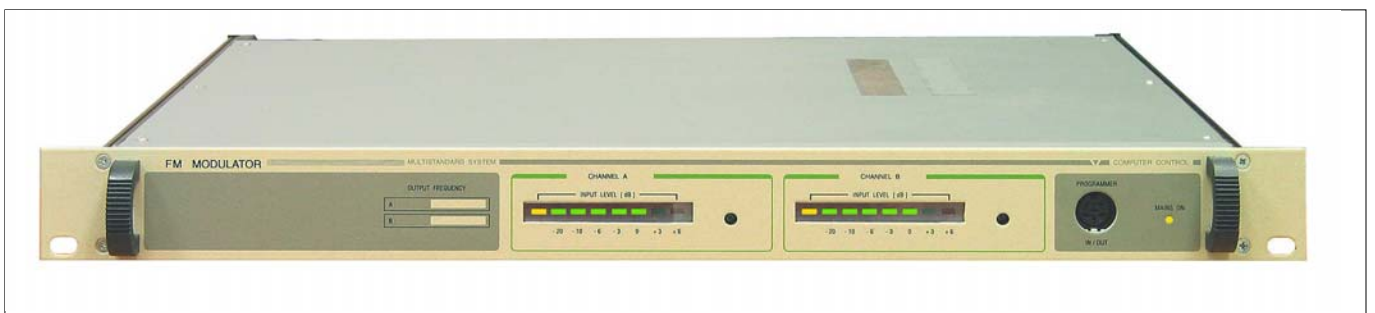
For making the program choice of cable TV systems more attractive, providing high quality FM radio programs beyond the TV programs is also needed.

Using the CW-303x FM MODULATOR, base band stereo radio programs coming from local studios, radio receivers and satellite receivers can be transmitted in Hi-Fi quality to the subscribers.

The CW-303x FM MODULATOR comprises two independent identical modulators, which permit two stereo radio programs to be encoded and transposed into any channel of its FM band for being supplied to the subscribers.

The microprocessor control of the unit allows easy installation and operation. The parameters can be set on the spot with the CW-3081 PROGRAMMER.

The proper driving levels for both channels can be checked up by front panel LED row indicators.

**Main features:**

- Processing the base band signals of two independent stereo radio programs
- Built in stereo encoder and FM modulator
- The output frequency is free programmable within the frequency band of the unit (CCIR or OIRT)
- Input level indicator LED rows on the front panel

Technical data

FM standard

Modulation	FM
Stereo encoding	according to the CCIR, EBU and FCC recommendations
Operational frequency band	
CW-3031:	CCIR 87.5 - 108 MHz
CW-3032:	OIRT 66.0 - 73 MHz

Transmission characteristics

Output signal	frequency modulated encoded stereo MPX signal
Nominal frequency deviation	75 kHz
Pre-emphasis	75 μ s CW-3031 50 μ s CW-3032
Amplitude response	less than +0,5 ... -2 dB between 30 Hz and 15 kHz related to the value at 500 Hz
Pilot signal	
- frequency	19 kHz
- level	-15.5 dB
Modulation distortion	less than 0.5 %
Signal to noise ratio	better than 60 dB between 50 Hz and 15 kHz
Stereo crosstalk	less than -36 dB between 50 Hz and 15 kHz

Input data

Input signal	L (left) channel signal and R (right) channel signal
Input frequency range	30 Hz ... 15 kHz
Input levels for nominal frequency deviation	- 6 dBm (387 mV), or 0 dBm (775 mV), or +6 dBm (1,55 V), programmable
Attenuation at 19 kHz	better than 50 dB
Input impedance	600 Ω , symmetrical

Output data

Frequency setting	by programming
Frequency accuracy	better than 1×10^{-4}
Output combiner	75 Ω directional coupler
Nominal output level	100 dB μ V (100 mVeff)
- variable range	± 3 dB
- stability	better than ± 1 dB
Harmonic amplitude	less than -50 dB
Other products	less than -60 dB

Programmable parameters

(with CW-3081 PROGRAMMER)

Input amplitude	
- variable range	0 ± 6 dB
Output frequency	
- raster	10 kHz
Output level	
- variable range	± 3 dB, in approx. 1 dB steps

General data

Service period	continuous
Mains voltage	230 V, -10 % ... +15 %, 50/60 Hz
Power consumption	50 VA
Type of the connectors	
- Sound inputs	RCA sockets
- RF output	F socket
Physical dimensions	19" \times 1 module
- Width	483.0 mm
- Height	43.6 mm
- Depth	473.0 mm
Mass	3 kg
Operational temperature range	
- to fulfil the specifications	+10 ... +35 $^{\circ}$ C
- to maintain operation	0 ... +40 $^{\circ}$ C
Storage temperature	- 25 ... +45 $^{\circ}$ C

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