

CW-3021

VHF-UHF RECEIVER

Supplying terrestrial programs into cable television headends should always be made with great caution, since many disturbing signals have to be prevented from getting into the system. This applies even more to systems with high number of channels, where very high signal purity must be assured.

The CW-3021 VHF-UHF RECEIVER is designed for this purpose. The receiving channel is set by programming. The unit receives the signal of the selected TV program and demodulates it to base band video and sound signal, suppressing the high frequency disturbances, preventing them to move along in the system

The level of the input signal and the actual operation modes are displayed with front panel LEDs.

A zero carrier reference pulse permits the unit to be used as measuring demodulator in test and measuring set-ups.



Main features:

- Equipped with a video demodulator of excellent quality
- Parallel type mono sound stage
- 5.5 / 6.5 MHz sound demodulator
- Zero carrier reference pulse for measuring the modulation depth with adjustable timing and switch on/off

Technical data

Transmission characteristics

Input signal	vision and sound carriers in the VHF-UHF band, modulated according to B/G and D/K standard
Output signal	base band video and sound signal
Amplitude response within the channel up to 4.5 MHz up to 4.8 MHz	less than 2 dB less than 5 dB

Input data

Input frequency bands	48.25 - 168.25 MHz 175.25 - 447.25 MHz 455.25 - 855.25 MHz
Nominal input level	60 - 90 dB μ V
Recommended input level	min. 66 dB μ V
Nominal input impedance	75 Ω

Output data

Video output:

Number of video outputs	2
Nominal output impedance	75 Ω
Output voltage	0.8 ... 1.2 Vp-p, adjustable from the front panel
Nominal output level	1 Vp-p (at 87.5% modulation depth)
Differential amplitude distortion (at 4.43 MHz)	less than 4 %
Differential phase distortion (at 4.43 MHz)	less than 4°
Signal to noise ratio in the 0 to 5 MHz band related to a black to white step	better than 54 dB rms (weighted according to CCIR Rec. 567)

Sound output:

Number of sound outputs	2
Output impedance	approx. 33 Ω
Nominal load impedance	600 Ω
Output level	0 dB \pm 3 dB, adjustable from the front panel
Nominal output level	0 dBm, at 50 kHz frequency deviation
De-emphasis	50 μ s
Amplitude response	less than 1 dB between 30 Hz and 15 kHz
Harmonic distortion	less than 1.5 % up to 50 kHz freq. deviation
Signal to noise ratio	better than 55 dB, at any video content, related to 50 kHz deviation, without weighting

Programmable parameters

1. Reception frequency	62.5 kHz
- raster	better than 1x10 ⁻⁴
- accuracy	
2. ZCR pulse	10 ... 56 μ s, adjustable in 1 μ s steps
- timing	
- pulse width	approx. 5 μ s, fixed

Supplementary data

Front panel LED indicators

- LOW	low input RF level (below 60 dB μ V)
- RF LEVEL	display of the actual RF input level in approx. 5 dB steps
- HIGH	excessive RF input level (over 90 dB μ V)
- NO SYNC	no composite sync signal
- VHF I-II	48.25 ... 107.94 MHz
- S L	108.00 ... 168.25 MHz
- VHF III	175.25 ... 229.94 MHz
- S H	230.00 ... 301.94 MHz
- HYPER	302.00 ... 447.25 MHz
- UHF	455.25 ... 855.25 MHz
- ZCR ON	ZCR pulse on

General data

Service period	continuous
Mains voltage	230V +10/-15 %, 50/60 Hz
Power consumption	50 VA
Type of connectors	
- RF input	IEC 169-2
- VIDEO output	BNC
- AUDIO output	RCA
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 °C
- to maintain operation	0 ... +40 °C
Storage temperature	- 25 ... +45 °C

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