1.1 Specifications

Frequency Ranges

EMFT	Bands I, III, IV / V CATV up to 470 MHz and IF 45.75 MHz
EMFK/EMFD	Bands I, III, IV / V and IF 45.75 MHz

Channel selection

EMFT	input of channel number or automatic search or optionally via IEEE bus
EMFK	crystal-controlled, switchable to AFC in demodulator mode
EMFD	turnable with AFC and rystal-controlled fixed-channel operation

Frequency stabilisation

EMFT	by synthesizer
EMFK/EMFD	crystal and AFC

Frequency error

EMFT	≤ ± 2,5 kHz
EMFK/EMFD	≤ ± 10 kHz (crystal) ≤ ± 30 kHz (AFC)

Inputs

RF	N female 50 Ω BNC 75 Ω (EMFT only)
IF	BNC

Return loss

EMFT	50 Ω	≤ 300 MHz ... ≥ 12 dB
	75 Ω	≥ 300 MHz ... ≥ 10 dB
EMFD		≥ 20 dB
EMFK		≥ 16 dB

Input level

EMFT	RF:	0.15 to	30 mV	
	switchable to 0.5 to 100 mV			
	IF:	5 mV to	100 mV	
EMFK	RF:	250 µV to	5 mV	(range 1)
		2.5 mV to	50 mV	(range 2)
	IF:	5 mV to	100 mV	
EMFD	RF:	20 mV to	400 mV	(range 1)
		80 mV to	1.6 V	(range 2)
	IF:	5 mV to	100 mV	

Additionally 6 dB beyond upper and lower limits of control range.

RF-input attenuation

EMFT	0/10/20 dB, manual or automatic setting
EMFK	0/20 dB (internal link)
EMFD	17/29 dB

Noise figure

EMFT RF input attenuation 0 dB	≤ 12 dB
EMFK	typ. 8 dB

4.5-MHz intercarrier input

BNC female, rear panel	Z_{in} = 50 Ω
Input level	30 mV to 200 mV

Outputs

Video outputs

In-phase signal	1 output each on front and on rear panel, BNC, Z_{out} = 75 Ω
Quadrature signal	1 output each on front and on rear panel, BNC, Z_{out} = 75 Ω

Output level

In-phase output	1.0 V_{pp}, CCVS, with standard modulation
Quadrature output	corresponding to 1.0 V_{pp} with standard modulation and internal shift of switching carrier by 90 °
Incidental carrier phase modulation	≤ ± 1 degree

IF output

BNC female, rear panel	Z_{out} = 50 Ω
Output level (AGC)	100 mV_{rms} ± 3 dB
Amplitude/frequency response 41 to 47 MHz	≤ 1.5 dB

4.5-MHz intercarrier output

BNC female, rear panel	Z_{out} = 50 Ω
Output level with vision/sound ratio of 13 dB	100 mV_{rms} ± 3 dB

Audio broadband output

Front panel	BNC, unbalanced, Z_{out} = 75 Ω
Rear panel	BNC, unbalanced, Z_{out} = 75 Ω
Output level	10 mV/kHz of deviation
± 25 kHz deviation, f_{mod} = 500 Hz	0.25 V into 75 Ω ± 3 dB adjustable

Audio mono output

Front panel	BNC, unbalanced, Z_{out} = 600 Ω
Rear panel	XLR male connector, balanced, Z_{out} = 600 Ω
Deemphasis	75 µs
Output level	50 mV/kHz of deviation
± 25 kHz deviation, f_{mod} = 500 Hz	1.25 V into 600 Ω ± 3 dB adjustable

Additional headphones socket for audio mono signal with switching contact for internal loudspeaker. Loudspeaker and headphones socket with built-in volume control.

It is possible to contact an external loudspeaker.

The speaker and headphone outputs are 8 Ω impedance outputs and filtered and deemphasized to provide only monophonic main channel.