

## House connection amplifiers



<b>VOS 952</b>	24410083
<b>VOS 953</b>	24410084

- Latest GaAs-MMIC technology
- Innovative operational concept:
  - Settings via slide switches
  - Device settings can be reproduced exactly
  - No plug-in cards and variable attenuators needed
- Very high output level at lowest intermodulation products
- Built-in active return path with various setting possibilities
- 15-MHz high pass can be activated in the return path
- Ingress Control Switch (ICS)
- Monitorable with HMS or Docsis (option)
- Plug-in module for additional functions in the forward path (e.g. de-emphasis)
- Bi-directional test socket on amplifier input with inductive coupling
- Directional coupler test socket on forward path output and in return path
- Coupling-in of test signals for the return path is possible
- Highly efficient switched-mode power supply unit
- **VOS 952** - locally fed, F-type connectors
- **VOS 953** - remotely fed (auto-supply), F-type sockets
- Surge absorbers on all RF connections and in switched-mode power supply unit
- Die-cast housing
- Test sockets: F-type sockets



VOS 952

## Accessories

- ERZ 940 (Order no. 24510059) - De-emphasis equaliser (cable simulation) 862 MHz, 7 dB fixed
- ERZ 630 (Order no. 24510108) - Equaliser 85-630 MHz, switchable 0-16 dB in 2 dB steps
- ERS 800 (Order no. 24510109) - System equaliser 862 MHz
- ERD 810 (Order no. 24510110) - De-emphasis equaliser, switchable 3 dB
- TVM 850/H (Order no. 26210077) - Monitoring transponder HMS (frequency-agile)
- TVM 1000/H (Order no. 26210083) - Monitoring transponder Docsis

## House connection amplifiers

Type		VOS 952	VOS 953	Notes
Order no.		24410083	24410084	
		Locally fed	Remotely fed	
<b>Forward path</b>				
Frequency range	MHz	47/85-862	47/85-862	
Gain <sup>1)</sup>	dB	38-30	38-30	Interstage setting
Frequency response	dB	1	1	
Attenuation setting range	dB	0-16	0-16	On amplifier input
Pre-emphasis setting range	dB	0-16 and 0/6	0-16 and 0/6	On amplifier input and Interstage
Noise figure	dB	4/5/5	4/5/5	At 38/34/30 dB gain
Max. operational level: CENELEC plan <sup>2)</sup>	dB $\mu$ V	112/116	112/116	CTB: 60 dB/CSO: 60 dB (pre-emphasis 6 dB)
Hum modulation ratio	dB	-	>70	
<b>Return path</b>				
Frequency range	MHz	5-65	5-65	
Gain, switchable	dB	30/21	30/21	
Frequency response	dB	0.5	0.5	
Attenuation setting range	dB	0/4/8 / 0-16	0/4/8 / 0-16	On input / Interstage
Pre-emphasis setting range	dB	0/3/6	0/3/6	Interstage
Ingress Control Switch (ICS)	dB	8/> 40	8/> 40	Attenuated/switched off
Max. output level at 30 and 21 dB gain	dB $\mu$ V	107/116	107/116	60 dB IM2/IM3 (EN 50083-5) to 65 MHz
Maximum output level	dB $\mu$ V	120	120	According to KDG 1 TS 140 (medium system load)
Input level density 30 dB gain	dB $\mu$ V/Hz	-10	-10	CINR at 50 dB (EN 60728-3/point 4.7)
Dynamic range (5-65 MHz) <sup>3)</sup>	dB	17	17	
Input level density 21 dB gain	dB $\mu$ V/Hz	-10	-10	CINR at 50 dB (EN 60728-3/point 4.7)
Dynamic range (5-65 MHz) <sup>3)</sup>	dB	25	25	
Noise figure	dB	5	5	
<b>NETWORK MANAGEMENT</b>				
Monitorable parameters		Internal supply voltage, internal current drain, temperature, ICS switch		
<b>Test sockets</b>				
Test socket 1 (on amplifier input)	dB	20	20	5-862 MHz bi-directional, internal
Test socket 2 (on amplifier output)	dB	20	20	5-862 MHz with directional coupler, external - return path signals can be fed in (5-65 MHz); if push-button is kept pressed (S10), the incoming return path signal can be measured
Test socket 3 (in return path)	dB	10	10	5-65 MHz with directional coupler, external

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<b>SWITCHED-MODE POWER SUPPLY</b>				
Input voltage range	$V_{AC}$	198-253	38-65	
Mains frequency range	Hz	47-63	47-63	
Power consumption	W	11	12	Return path amplifier active/without monitoring
<b>General</b>				
Classification according to KDG 1 TS 140		C(4.4)	C(4.4)	
Ambient temperature range	°C	-20 to +55	-20 to +55	
RF connections		F-type socket	F-type socket	
Test sockets		F-type socket	F-type socket	
Housing protection class (to EN 60529)		IP 54	IP 54	IP 54: Outdoor use in weather-proof cabinet
Dimensions (W x H x D)	mm	225 x 55 x 155	225 x 55 x 155	
Packing unit/weight	pc./kg	1(10)/1.8	1(10)/1.8	

<sup>1)</sup> Adjustable with slide switches in 1 dB steps

<sup>2)</sup> CENELEC: 42 channels

<sup>3)</sup> When the 15 MHz high pass is connected, the dynamic range increases by 3 dB

## Block diagram

