



Amplifiers, Power supplies

- Multiband amplifiers for VHF-UHF, FM
- Multi channel programmable filter amplifier
- Splitband amplifiers
- Splitband amplifiers
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- Pre-amplifier sets (with power supply)
- Selective pre-amplifiers
- Power supplies

Multiband amplifiers for VHF-UHF, FM

*adjustable
F-connectors, 75 Ω
EMC acc. to CE

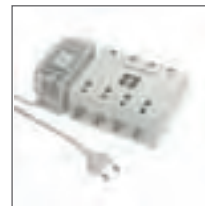
VS 56 A



VS 80



VS 83 A



Type	VS 56 A Multiband amplifier for VHF - UHF, FM	VS 80 Multiband amplifier / Splitband	VS 83 A Multiband amplifiers for VHF-UHF, FM
Frequency range input 1	FM 87-108 MHz	FM 88.5-108 MHz	FM 87-108 MHz
Frequency range input 2	VHF I 47-68 MHz	VHF I 47-68 MHz	VHF I 47-68 MHz
Frequency range input 3	VHF III 174-230 MHz	VHF III 174-230 MHz	VHF III 174-230 MHz
Frequency range input 4	UHF 470-862 MHz	UHF 470-862 MHz	UHF 470-862 MHz
Frequency range input 5	-	UHF 470-862 MHz	-
Channel input 1	FM	-	FM
Channel input 2	2-4	-	2-4
Channel input 3	5-12	-	5-12
Channel input 4	21-69	-	21-69
Channel input 5	-	21-69	-
Gain input 1	18 dB	35 dB, T-18	28 dB, T-18
Gain input 2	18 dB	35 dB, T-18	28 dB, T-18
Gain input 3	18 dB	35 dB, T-18	28 dB, T-18
Gain input 4/5	21/-	42 dB, T-18/42 dB, T-18	28 dB, T-18/-
1 test output	-	-20 dB	-
Output level (60 dB IMR)	113 dBμV	118 dBμV	113 dBμV
Noise figure	<7 dB	-	<7 dB
Operating voltage	230 VAC	230 VAC	230 VAC
Power consumption	3.8 W	8.5 W	3.8 W
Operating temperature	0 ... +50 °C	0 ... +50 °C	0 ... +50 °C
Packing unit	1 piece, 1.42 dm ³	1 piece, 1.7 dm ³	1 piece, 1.42 dm ³
Shipping package	10 pieces, 17 dm ³ , 5.6 kg	10 pieces, 20 dm ³ , 5.9 kg	10 pieces, 17 dm ³ , 5.6 kg

Multi channel programmable filter amplifier

VS 21



Programmable Multi channel filter amplifier

- For digital and analog channels
- 6 inputs. B I-II / B III / VHF-UHF and 3 UHF inputs
- Split into 10 UHF clusters
- Cluster bandwidth 1..7 channels
- All settings via OK41 / 41A Handset
- Copy and paste function supports easy setting of several VS21
- Highly selective filters
- Low noise, high gain splitband amplifiers
- Output level 123 dB μ V
- Manual or automatic level adjustment
- Remot feeding voltage for masthead amplifiers on inputs
- 30 dB testpoint

Input frequency range	BI-FM	47-108 MHz	
	B III	174-240 MHz	
	VHF-UHF	47-240 + 470-862 MHz	
	UHF I	470-862 MHz	
	UHF II	470-862 MHz	
	UHF III	470-862 MHz	
Adjustment cluster	UHF I	UHF II	UHF III
	1..7 channels / cluster	2	8
		2	7
	2	5	3
Gain	BI-FM	35 dB	
	BIII	40 dB	
	VHF-UHF	40 dB	
	UHF I, II, III	55 dB	
Attenuator	BI-FM, BIII, VHF-UHF	20 dB	
	UHF I, II, III	30 dB	
UHF level adjustable	+ 10 dB...-9 dB		
Noise figure	< 6 dB		
Input level max.	80 dB μ V		
Output level max.	BI-FM, BIII, VHF	118 dB μ V	
	UHF, UHF I, UHF II, UHF III	123 dB μ V	
Return loss	IN / OUT	BI-FM	> 7 dB
		BIII	> 8 dB
		VHF-UHF	> 5 dB
		UHF I, II, III	> 6 dB
Test signal output	-30 dB		
Data connection	D-Sub 9		
Operating voltage	230 VAC		
Dimensions	265x220x95 mm		
Ambient temperature	-5°C ... +55°C		
Storage temperature	-25°C...+75°C		
Max. humidity, non condensing	95%		
Packing unit	1 piece	7.3 dm ³ ; 1.5 kg	
EMC	CE		



Splitband amplifiers

VS 93 A



Splitband amplifier 2,4 GHz

Inputs	1	1	2
Frequency range	47-862 MHz +	950-2400 MHz	470-862 MHz
Gain	10-18 dB, T-18	27-35 dB, T-18	-3 dB
Equalization, switchable	-	8/16 dB	-
Output level, max. (IMR 60 dB)	109 dB μ V	118 dB μ V	
Noise figure	<8 dB typ.	<12 dB typ.	-
Operation voltage			230 VAC
Power consumption, max.			15 W
LNC remote power supply		13-14 VDC	300 mA
Dimensions			178x116x48 mm
Packing unit		1 piece	1.7 dm ³
Shipping package		10 pieces	20 dm ³ , 5.9 kg
EMC			CE

VX 51



Splitband amplifier

Input	VHF +	UHF
Frequency range	47-400 MHz	470-862 MHz
Gain with slope	28-35 dB	36-42 dB
Output level, max. (IMR 60 dB)	118 dB μ V	116 dB μ V
Attenuator	\leq 18 dB	\leq 18 dB
Equalizer	\leq 12 dB	\leq 10 dB
Testpoint		-20 dB
EMC		CE
RF-connectors		F-type
Operating voltage		230 VAC
Power consumption		<10 W
Ambient temperature		0°C ... 55°C
Dimensions		178x116x48 mm
Packing unit	1 piece	1.7 dm ³
Shipping package	10 pieces	20 dm ³ , 6.0 kg

Splitband amplifiers

VS 94



Splitband amplifier

Inputs	TERR	2x SAT
Frequency range	47-862 MHz	950-2150 MHz
Gain	-7 dB	29-36 dB
Equalization, switchable	-	0/6 dB
Output level, max. (DIN 45004A1)	-	117 dB μ V
Output level, max. (DIN 45004B)	-	120 dB μ V
Noise figure	-	\leq 6 dB
EMC		CE, Class A
Operating voltage		230 VAC
Power consumption, max.		12,5 W
LNC remote power supply	14 VDC	500 mA
Dimensions		177x122x40 mm
Packing unit	1 piece	2.14 dm ³ , 1.08 kg
Shipping package	5 pieces	14 dm ³ , 5.7 kg

VS 95



Splitband amplifier

Inputs	2x TERR +	SAT
Frequency range	47-862 MHz	950-2150 MHz
Gain	23-29 dB	29-36 dB
Equalization, switchable	0/5 dB	0/6 dB
Output level, max. (DIN 45004A1)	106 dB μ V	117 dB μ V
Output level, max. (DIN 45004B)	118 dB μ V	120 dB μ V
Noise figure	\leq 6 dB	\leq 6 dB
EMC		CE, Class A
Operating voltage		230 VAC
Power consumption, max.		9 W
Dimensions		177x122x40 mm
Packing unit	1 piece	2.14 dm ³ , 1.08 kg
Shipping package	5 pieces	14 dm ³ , 5.7 kg



In-house distribution amplifiers

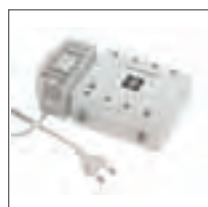
- Improved intermodulation resistance due to dynamic feedback circuit
- Return path 5-30/5-65 MHz

VX 83 A

VX 83 A 0650

VX 83 B

VX 83 B 0650

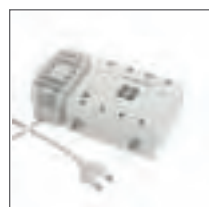


Type	VX 83 A In-house distribution amplifier	VX 83 A 0650 In-house distribution amplifier	VX 83 B In-house distribution amplifier	VX 83 B 0650 In-house distribution amplifier
RF input /output	F-type	F-type	F-type	F-type
Frequency range (Typ 0300)	47-862 MHz	-	47-862 MHz	-
Frequency range (Typ 0650)	-	87.5-862 MHz	-	87.5-862 MHz
Passive return path (Typ 300)	5-30 MHz		5-30 MHz	-
Passive return path (Typ 0650)	-	5-65 MHz	-	5-65 MHz
Gain	28-31 dB, T - 20 dB	28-31 dB, T - 20 dB	28-31 dB, T - 20 dB	28-31 dB, T - 20 dB
Equalization	3 dB	3dB	-	-
Equalization, variable	-	-	3-18 dB	3-18 dB
Amplitude frequency response	±2 dB	± 2 dB	±2 dB	±2 dB
Output level at 60 dB IMR 3.rd order	113 dBμV	113 dBμV	113 dBμV	113 dBμV
Output level at 60 dB IMR 2.nd order	102 dBμV	102 dBμV	102 dBμV	102 dBμV
Output level CENELEC 42 channels (EN 50083-3)	95 dBμV	95 dBμV	95 dBμV	95 dBμV
Power supply	230 VAC, 50/60 Hz	230 VAC 50/60 Hz	230 VAC, 50/60 Hz	230 VAC 50/60 Hz
Power consumption	3.5 W	3.5 W	3.5 W	3.5 W
Operating temperature	0°C ...+55°C	0°C ...+55°C	0°C ...+55°C	0°C ...+55°C
Dimensions	180 x 93 x 49 mm	180x93x49 mm	180 x 93 x 49 mm	180x93x93 mm
Packing unit	1 piece, 1.42 dm ³	1 piece, 1.42 dm ³	1 piece, 1.42 dm ³	1 piece, 1.42 dm ³
Shipping package	10 pieces, 17 dm ³ , 5.6 kg	10 pieces, 17 dm ³ , 5.6 kg	10 pieces, 17 dm ³ , 5.6 kg	10 pieces, 17 dm ³ , 5.6 kg
EMC	CE	CE	CE	CE

In-house distribution amplifiers

- Improved intermodulation resistance due to dynamic feedback circuit
- Return path 5-30/5-65 MHz

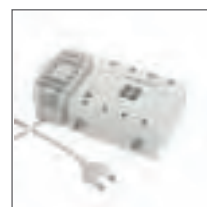
VX 84 A



VX 84 A 0650



VX 84 B



VX 85 A



Type	VX 84 A In-house distribution amplifier	VX 84 A 0650 In-house distribution amplifier	VX 84 B In-house distribution amplifier	VX 85 A In-house distribution amplifier
RF input /output	F-type	F-type	F-type	F-type
Frequency range (Typ 0300)	47-862 MHz	-	47-862 MHz	47-862 MHz
Frequency range (Typ 0650)	-	87.5-862 MHz	-	-
Passive return path (Typ 300)	5-30 MHz	-	5-30 MHz	5-30 MHz
Passive return path (Typ 0650)	-	5-65 MHz	-	-
Gain	18-21 dB, T - 20 dB	18-21dB, T - 20 dB	18-21 dB, T - 20 dB	10 dB
Equalization	3 dB	3 dB	-	
Equalization, variable	-	-	3-18 dB	
Amplitude frequency response	±2 dB	±2 dB	±2 dB	±2 dB
Output level at 60 dB IMR 3.rd order	113 dBμV	113 dBμV	113 dBμV	113 dBμV
Output level at 60 dB IMR 2.nd order	102 dBμV	102 dBμV	102 dBμV	102 dBμV
Output level CENELEC 42 channels (EN 50083-3)	95 dBμV	95 dBμV	95 dBμV	95 dBμV
Power supply	230 VAC, 50/60 Hz	230 VAC 50/60 Hz	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz
Power consumption	3 W	3.5 W	3 W	2 W
Operating temperature	0°C ...+55°C	0°C ...+55°C	0°C ...+55°C	0°C ...+55°C
Dimensions	180 x 93 x 49 mm	180x93x49 mm	180 x 93 x 49 mm	180 x 93 x 49 mm
Packing unit	1 piece, 1.42 dm ³	1 piece, 1.42 dm ³	1 piece, 1.42 dm ³	1 piece, 1.42 dm ³
Shipping package	10 pieces, 17 dm ³ , 5.6 kg	10 pieces, 17 dm ³ , 5.6 kg	10 pieces 17 dm ³ , 5.6 kg	10 pieces, 17 dm ³ , 5.6 kg
EMC	CE	CE	CE	CE



In-house distribution amplifiers, IEC



VX 63



VX 64



VX 67



Type	VX 63 In-house distribution amplifier	VX 64 In-house distribution amplifier	VX 67 In-house distribution amplifier
Connector	IEC, 75 Ω	IEC, 75 Ω	IEC, 75 Ω
Output/Mutual isolation	1/- dB	1/-	6 / 40 dB
Frequency range	47-862 MHz	47-862 MHz	47-862 MHz
Gain	28-31 dB, T-18 dB	18-22 dB, T-10 dB	6 x 7 dB, T-18 dB
Equalizer	4 dB	4 dB	4 dB
Output level at 60 dB IMR	113 dBμV	113 dBμV	92 dBμV
Operating voltage	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz
Power consumption	3 W	3 W	3 W
Operating temperature	0°C ...+55°C	0°C ...+55°C	0°C ...+55°C
Packing unit	1 piece, 1.3 dm ³	1 piece, 1.3 dm ³	1 piece, 1.3 dm ³
Shipping package	10 pieces, 17 dm ³ , 5.5 kg	10 pieces, 17 dm ³ , 5.5 kg	10 pieces, 17 dm ³ , 5.7 kg
EMC	CE	CE	CE

In-house distribution amplifiers MINI LINE

VX 81 / VX 82 active return path
 VX 86 / VX 87 passive return path
 - adjustable level and equalizer
 - lightning protection on input
 - Wall mounting
 *Active/passive jumper

VX 81



VX 82



VX 86



VX 87



Type	VX 81 In-house distribution amplifier	VX 82 In-house distribution amplifier	VX 86 In-house distribution amplifier	VX 87 In-house distribution amplifier
Frequency range US/DS	4-65/ 87-862 MHz	4-65/ 87-862 MHz	4-30/ 47-862 MHz	4-30/47-862 MHz
Gain DS	18-21 dB	28-31 dB	18-21 dB	28-31 dB
Attenuator	0-18 dB	0-18 dB	0-18 dB	0-18 dB
Equalizer	3-18 dB	3-18 dB	3-18 dB	3-18 dB
Output level CENELEC 42 channels (EN 50083-3)	97 dBμV	97 dBμV	97 dBμV	97 dBμV
Output level (EN50083-5/3.Ord)	114 dBμV	114 dBμV	114 dBμV	114 dBμV
Return path amplifier US	20 (-2)* dB	20 (-2)* dB	-2 dB	-2 dB
Attenuator US	0-18 dB	0-18 dB	-	-
Output level US (EN50083-5/3.Ord)	112 dBμV	112 dBμV	-	-
EMC	CE, Class A	CE, Class A	CE, Class A	CE, Class A
RF inputs and outputs	F-type	F-type	F-type	F-type
Operating voltage	230 VAC 50/60 Hz	230 VAC 50/60 Hz	230 VAC 50/60 Hz	230 VAC 50/60 Hz
Power consumption	3.5 W	3.5 W	3.0 W	3.0 W
Operating temperature	-20°C...+55°C	-20°C...+55°C	-20°C...+55°C	-20°C...+55°C
Dimensions	163x90x47 mm	163x90x47 mm	163x90x47 mm	163x90x47 mm



In-house distribution amplifiers HOME LINE



- Integrated return path amplifier
- Diplex filters plug-in
- Integrated attenuator and equalizer downstream
- Integrated attenuator upstream
- Switch mode power supply
- Testsocket at input -20 dB bidirectional for levelling the return path signal
- Testsocket at output -20 dB directional coupler

VX 43



VX 44



VX 45



Type	VX 43 In-house distribution amplifier	VX 44 In-house distribution amplifier	VX 45 In-house distribution amplifier
Frequency range DS	47/85-862 MHz	47/85-862 MHz	47/85-862 MHz
Gain DS	17-20 dB ±1	25-28 dB ±1	33-36 dB ±1
Equalizer	0-15 dB	0-15 dB	0-15 dB
Adjustable attenuator	0-15 dB	0-15 dB	0-15 dB
Slope	3 dB	3 dB	3 dB
Output level, 60 dB IMA 3rd order	≥114 dBμV	≥114 dBμV	≥114 dBμV
Output level, CENELEC 42 channels, flat	≥98 dBμV	≥98 dBμV	≥98 dBμV
Output level, CENELEC 42 channels , 4 dB slope	≥100 dBμV	≥100 dBμV	≥100 dBμV
Noise figure	<8 dB	<8 dB	<8 dB
Frequency range US	5-30/65 MHz	5-30/65 MHz	5-65 MHz
Gain US	20-23 dB	20-23 dB	20-23 dB
Adjustable attenuator US	0-20 dB	0-20 dB	0-20 dB
Slope US	3 dB	3 dB	3 dB
Output level EN 50083-5 US	114 dBμV	114 dBμV	114 dBμV
Operating voltage	230 VAC 50/60Hz	230 VAC 50/60Hz	230 VAC 50/60Hz
Power consumption	<6.5 W	<6.5 W	<6,5 W
Connector	F-type	F-type	F-type
EMC	CE, Class A	CE, Class A	CE, Class A
Testpoints Input/Output	-20 dB	-20 dB	-20 dB
Packing unit	1 piece, 2.14 dm ³ , 1.08 kg	1 piece, 2.14 dm ³ , 1.08 kg	1 piece, 2.14 dm ³ , 1.08 kg

In-house distribution amplifiers HOME LINE, A series



VX 43 A



VX 44 A



VX 45 A



VX 46 A



Type	VX 43 A In-house distribution amplifier	VX 44 A In-house distribution amplifier	VX 45 A In-house distribution amplifier	VX 46 A In-house distribution amplifier remote-powered
Frequency range DS	47/85-862 MHz	47/85-862 MHz	47/85-862 MHz	47/85-862 MHz
Gain DS	17-20 dB ±1	25-28 dB ±1	33-36 dB ±1	29 dB ±1
Equalizer	0-15 dB	0-15 dB	0-15 dB	0-15 dB
Adjustable attenuator	0-15 dB	0-15 dB	0-15 dB	0-15 dB
Slope	3 dB	3 dB	3 dB	3 dB
Output level 60 dB IMA 3rd order	≥117 dBμV	≥117 dBμV	≥117 dBμV	≥117 dBμV
Output level 42 channels, flat	≥100 dBμV	≥100 dBμV	≥100 dBμV	≥100 dBμV
Output level 42 channels, 4 dB slope	≥102 dBμV	≥102 dBμV	≥102 dBμV	≥102 dBμV
Noise figure	<8 dB	<8 dB	<8 dB	<8 dB
Frequency range US	5-30/65 MHz	5-30/65 MHz	5-65 MHz	5-65 MHz
Gain US	20-23 dB	20-23 dB	20-23 dB	25 dB
Adjustable attenuator US	0-20 dB	0-20 dB	0-20 dB	0-22 dB
Slope US	3 dB	3 dB	3 dB	3 dB
Output level EN 50083-5 US	114 dBμV	114 dBμV	114 dBμV	112 dBμV
Operating voltage	230 VAC 50/60Hz	230 VAC 50/60Hz	230 VAC 50/60Hz	27-65 VAC 50/60 Hz
Power consumption	<6.5 W	<6.5 W	<6.5 W	<6.5 W
Connector	F-type	F-type	F-type	F-type
EMC	CE, Class A	CE, Class A	CE, Class A	CE, Class A
Testpoints Input/Output	-20 dB	-20 dB	-20 dB	-20 dB
Packing unit	1 piece, 14 dm ³ , 1.08 kg	1 piece, 14 dm ³ , 1.08 kg	1 piece, 14 dm ³ , 1.08 kg	1 piece, 14 dm ³ , 1.08 kg



Distribution amplifiers VALUE LINE

- GaAs-technology
- High gain, low noise
- Return path 30/65 MHz
- One or two outputs jumper
- Equalization/attenuation 0-18 dB
- Test sockets at in- and output
- Aluminium die-cast housing
- Splashwater protected
- Low power consumption

VX 20 B



VX 21 P



VX 22 A



Type	VX 20 B Distribution amplifier PUSH PULL	VX 21 P Distribution amplifier PUSH PULL	VX 22 A Distribution amplifier POWER DOUBLING
Frequency range	47/85-862 MHz	47/85-862 MHz	47/85-862 MHz
Gain	31 dB \pm 1.5	31 dB \pm 1.5	35 dB \pm 1,5
Output level EN 50083-3	123 dB μ V	123 dB μ V	125 dB μ V
Output level EN 50083-3 2.nd order	121 dB μ V	121 dB μ V	119 dB μ V
Output level CENELEC 42 ch. / flat	104 dB μ V	104 dB μ V	107 dB μ V
Output level CENELEC 42 ch. / slope 6 dB	106 dB μ V	106 dB μ V	110 dB μ V
Equalizer, attenuator	0-18 dB	0-18 dB	0-18 dB
Test socket (input, output)	-20 dB	-20 dB	-20 dB
Noise figure	\leq 6 dB	\leq 6 dB	\leq 6 dB
Return loss (input / output)	18 dB -1.5 dB/Oct., >14 dB	18 dB -1.5 dB/Oct., >14 dB	18 dB -1.5 dB/Oct., >14 dB
EMC	CE, Class A	CE, Class A	CE, Class A
RF-connectors	F-type	PG 11	F-type
Ambient temperature	-20 ... +50°C	-20 ... +50°C	-20 ... +50°C
Remote feed voltage	-	27-65 VAC, 50/60 Hz	-
Operating voltage	207-253 VAC, 50/60 Hz	-	207-253 VAC, 50/60 Hz
Power consumption	6.9 W	6.5 W	12 W
Dimensions	244 x 134 x 84 mm	244 x 134 x 84 mm	244 x 134 x 84 mm
Packing unit	1 piece, 8,1 dm ³ , 1.75 kg	1 piece, 8,1 dm ³ , 1.75 kg	1 piece, 8,1 dm ³ , 1.75 kg



Distribution amplifiers VALUE LINE



- GaAs-technology
- High gain, low noise
- Return path 30/65 MHz
- One or two outputs jumper
- Equalization/attenuation 0-18 dB
- Test sockets at in- and output
- Aluminium die-cast housing
- Splaswater protected
- Low power consumption

VX 22 P



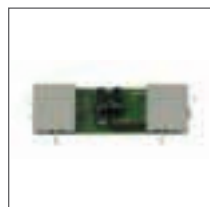
VX 23 P



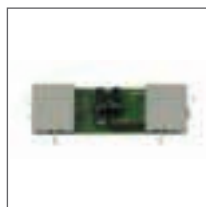
Type	VX 22 P Distribution amplifier POWER DOUBLING	VX 23 P Distribution amplifier POWER DOUBLING
Frequency range	47/85-862 MHz	47/85-862 MHz
Gain	35 dB ± 1,5	35 dB ±1.5
Output level EN 50083-3	125 dBμV	125 dBμV
Output level EN 50083-3 2.nd order	119 dBμV	119 dBμV
Output level CENELEC 42 ch. / flat	107 dBμV	107 dBμV
Output level CENELEC 42 ch. / slope 6 dB	110 dBμV	110 dBμV
Equalizer, attenuator	0-18 dB	0-18 dB
Test socket (input, output)	-20 dB	-20 dB
Noise figure	≤6 dB	≤6 dB
Return loss (input / output)	18 dB - 1,5 dB/Oct. >14 dB	18 dB -1.5 dB/Oct. >14 dB
EMC	CE, Class A	CE, Class A
RF-connectors	PG 11	PG 11
Ambient temperature	-20....50°C	-20 ... +50°C
Remote feed voltage	-	27-65 VAC, 50/60 Hz
Operating voltage	207-253 VAC, 50/60 Hz	-
Power consumption	12 W	12 W
Dimensions	244x134x84 mm	244 x 134 x 84 mm
Packing unit	1 piece, 8.1. dm ³ , 1.75 kg	1 piece, 8.1 dm ³ , 1.75 kg

Accessories Distribution amplifiers VALUE LINE

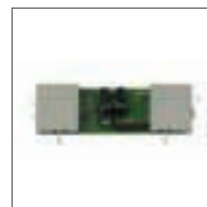
VX 28 0300



VX 28 0650



VX 28 A 0300



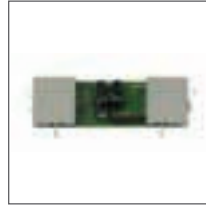
Type	VX 28 0300 Return path module 30 MHz	VX 28 0650 Return path module 65 MHz	VX 28 A 0300 Return path module 4-30 MHz
Frequency range	5-30 MHz	5-65 MHz	4-30 MHz
Gain	>18 dB	>18 dB	20 dB
Equalizer	>0-10 dB	>0-10 dB	0-10 dB
Attenuator	>0-10 dB	>0-10 dB	0-10 dB
Packing unit	1 piece, bag	1 piece, bag	1 piece, bag



Accessories Distribution amplifiers VALUE LINE



VX 28 A 0650



ZG 01



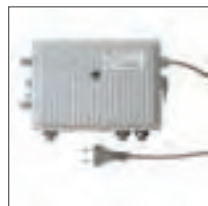
Type	VX 28 A 0650 Return path module	ZG 01 Adapter PG11 - 5/8"
Frequency range	5-65 MHz	-
Gain	>18 dB	-
Equalizer	>0-10 dB	-
Attenuator	>0-10 dB	-
Packing unit	1 piece, bag	1 piece, bag



Programmable distribution amplifiers VALUE LINE

- CATV-amplifier with high output level
- Protection class IP 66
- All adjustments(gain, slope etc.) programmable with handset OK 41 A or HMS transponder VT 24
- Return path module active/passive
- 2way splitter plugable

VX 24



VX 25



Type	VX 24 In-house distribution amplifier local powered	VX 25 In-house distribution amplifier remote powered
Frequency range determined by	47/85-862 MHz	47/85-862 MHz
Gain	36 dB	36 dB
Output level CENELEC 42ch, flat	109 dB μ V	109 dB μ V
- CSO	≥ 64 dB	≥ 64 dB
- CTB	≥ 60 dB	≥ 60 dB
Output level CENELEC 42ch, 9 dB slope	112 dB μ V,	112 dB μ V
- CSO	≥ 63 dB	≥ 63 dB
- CTB	≥ 60 dB	≥ 60 dB
Attenuator	0-15 dB, 0,5-dB-steps	0-15 dB, 0,5-dB-steps
Equalizer	0-15 dB, 0,5-dB-steps	0-15 dB, 0,5-dB-steps
Interstage		
- Attenuator	0 / 5 dB	0 / 5 dB
- Equalizer	0 / 9 dB	0 / 9 dB
Test socket	-20 dB	-20 dB
EMC	CE, Class A	CE, Class A
Operating voltage	180-265 VAC / 50/60 Hz	27-65 VAC
Power consumption	< 13 W	< 13 W
Connectors Input Output	PG 11	PG 11
Remote power current	Input <6 A; output <3 A	Input < 6 A; output < 3 A
Ambient temperature	-20 °C...+55 °C	-20 °C...+55 °C
Dimensions (WxDxH)	236x145x90 mm	236x145x90 mm



Accessories for programmable amplifiers VALUE LINE

OK 41 A



Handset for all programmable

with memory, lightning display and LED torch

Packing unit	1 piece	1.25 dm ³
Shipping unit	10 pieces	15 dm ³ , approx. 1 kg

VX 27 A

Return path module active

Frequency range	depending on diplexfilter	5-30/65 MHz
Gain		30 dB
Attenuator	1-dB-steps	0-30 dB
Equalizer	0,5-dB-steps	0-10 dB
Output level EN 50083-5		114 dB μ V
ICS (Ingress Control Switch)		0 / 8 / >45 dB
Feed-in socket		-20 dB
Test socket		-20 dB

VX 27 A 0180

Return path module active

Frequency range	depending on diplexfilter	18-30/65 MHz
Gain		30 dB
Attenuator	1-dB-steps	0-30 dB
Equalizer	0,5-dB-steps	0-10 dB
Output level EN 50083-5		114 dB μ V
ICS (Ingress Control Switch)		0 / 8 / >45 dB
Feed-in socket		-20 dB
Test socket		-20 dB

VX 27 P

Return path module passive on request!

XE 20 A 0300



Diplexfilter

Frequency	30/47 MHz
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Programmable Trunk amplifiers COMPACT LINE



- Equalizer/Attenuator (step size 0.1 dB)
- *Depending on diplex filter
- All settings (gain, slope etc.) by WISI control unit (OK 41 handset) or LMT (laptop) via HMS transponder VT 51
- Includes interface for NMS functionality
- Diplex filters and splitter/tap-modules pluggable
- High level return amplifier on board
- Remote power 35-90 V optional!
- ASC / ALSC modul VX 58

VX 52



VX 53



VX 54



VX 55



Type	VX 52 Universal trunk / distribution amplifier	VX 53 Universal trunk / distribution amplifier	VX 54 Universal trunk / distribution amplifier	VX 55 Universal trunk / distribution amplifier
Frequency range, US/DS	5-(30)65 MHz* / 47(85)-862 MHz*	5-(30)65 MHz* / 47(85)-862 MHz*	5-(30)65 MHz* / 47(85)-862 MHz*	5-(30)65 MHz* / 47(85)-862 MHz*
Gain, US/DS	30 dB / 40dB	30 dB / 40dB**	30 dB / 29dB	30 dB / 29dB
Return loss, US/DS	≥20 dB (-1.5 dB/ oct.) / ≥20 dB (-1.5 dB/ oct.)	≥20 dB (-1.5 dB/ oct.) / ≥20 dB (-1.5 dB/ oct.)	≥20 dB (-1.5 dB/ oct.) / ≥20 dB (-1.5 dB/ oct.)	≥20 dB (-1.5 dB/ oct.) / ≥20 dB (-1.5 dB/ oct.)
Noise figure, US/DS	≤8 dB / ≤6 dB	≤8 dB / ≤6 dB	≤8 dB / ≤6 dB	≤8 dB / ≤6 dB
Attenuator, DS	0-15 dB	0-15 dB	0-15 dB	0-15 dB
Equalizer, DS	0-15 dB	0-15 dB	0-15 dB	0-15 dB
Interstage attenuator, DS	0 / 5 / 10 dB	0 / 5 / 10 dB	0 / 5 / 10 dB	0 / 5 / 10 dB
Interstage slope, DS	0 / 6 / 9 dB	0 / 6 / 9 dB	0 / 6 / 9 dB	0 / 6 / 9 dB
Output level CENELEC 42 ch., flat, DS	1x 111 dBμV, 2x 107 dBμV	1x 111 dBμV, 2x 107 dBμV	1x 111 dBμV, 2x 107 dBμV	1x 111 dBμV, 2x 107 dBμV
Output level CENELEC 42 ch., 6 dB slope, DS	1x 114 dBμV, 2x 110 dBμV	1x 114 dBμV, 2x 110 dBμV	1x 114 dBμV, 2x 110 dBμV	1x 114 dBμV, 2x 110 dBμV
Attenuator, US	0-30 dB	0-30 dB	0-30 dB	0-30 dB
Equalizer, US	0-10 dB	0-10 dB	0-10 dB	0-10 dB
Output level EN 50083-5, US	116 dBμV	116 dBμV	116 dBμV	116 dBμV
ICS, US	0 / -8 / -45 dB	0 / -8 / -45 dB	0 / -8 / -45 dB	0 / -8 / -45 dB
EMC	CE, Class A	CE, Class A	CE, Class A	CE, Class A
Power supply	180-265 VAC, 50/60 Hz	-	180-265 VAC, 50/60 Hz	-
Remote feed voltage	-	27-65 VAC, 50/60 Hz	-	27-65 VAC, 50/60 Hz
Power consumption without transponder	22.5 W	22.5 W	22.5 W	22.5 W
Power consumption with transponder	26 W	26 W	26 W	26 W
Dimensions	260 x 215 x 95 mm	260 x 215 x 95 mm	260 x 215 x 95 mm	260 x 215 x 95 mm

Programmable trunk and distribution amplifier COMPACT LINE

- Equalizer/Attenuator (step size 0.1 dB)
 *Depending on diplex filter
 - All settings (gain, slope etc.) by WISI control unit (OK 41 handset) or LMT (laptop) via HMS transponder VT 51
 - Includes interface for NMS functionality
 - Diplex filters and splitter/tap-modules pluggable
 - High level return amplifier on board
 - Remote power 35-90 V optional!
 - ASC / ALSC modul VX 58

VX 56



VX 57



Type	VX 56 Universal trunk / distribution amplifier	VX 57 Universal trunk / distribution amplifier
Frequency range, US/DS	5-(30)65 MHz* / 47(85)-862 MHz*	5-(30)65 MHz* 47(85)-862 MHz*
Gain, US/DS	26 dB / 38 dB	26 dB / 38 dB****
Return loss, US/DS	≥20 dB (-1.5 dB/oct.) / ≥20 dB (-1.5 dB/oct.)	≥20 dB (-1.5 dB/oct.) / ≥20 dB (-1.5 dB/oct.)
Noise figure, US/DS	≤11 dB / ≤6.5 dB	≤11 dB / ≤6.5 dB
Attenuator, DS	0-15 dB	0-15 dB
Equalizer, DS	0-15 dB	0-15 dB
Interstage attenuator, DS	0 / 5 / 10 dB	0 / 5 / 10 dB
Interstage slope, DS	0 / 6 / 9 dB	0 / 6 / 9 dB
Output level CENELEC 42 ch., flat, DS	2x 111 dBμV	2x 111 dBμV
Output level CENELEC 42 ch., 6 dB slope, DS	2x 114 dBμV	2x 114 dBμV
Attenuator, US	0-26 dB	0-26 dB
Equalizer, US	0-10 dB	0-10 dB
Output level EN 50083-5, US	116 dBμV	116 dBμV
ICS, US	0 / -8 / -45 dB	0 / -8 / -45 dB
EMC	CE, Class A	CE, Class A
Power supply	180-265 VAC, 50/60 Hz	-
Remote feed voltage	-	27-65 VAC, 50/60 Hz
Power consumption without transponder	26 W	26 W
Power consumption with transponder	30 W	30 W
Dimensions	260 x 215 x 95 mm	260 x 215 x 95 mm



Accessories COMPACT LINE

ASC = Automatic Slope Control 1 pilot (287-862 MHz)
 ALSC = Automatic Level & Slope Control 2 pilots (287-862 MHz, 110-140 MHz)
 Specify pilot frequencies / channel when ordering*.

	OK 41 A	Handset for all programmable amplifiers and nodes with memory, lightning display and LED torch
	Packing unit	1 piece 1.25 dm ³
	Shipping unit	10 pieces 15 dm ³ , approx. 1 kg
	VT 51	HMS Transponder module
	XE 50 0300	Diplex filter Frequency 30/47 MHz
	XE 50 0650	Diplex filter Frequency 65/85 MHz
	XE 51	Equalizer module 862 MHz Side loss 3/9 dB
	XE 51 6000	Equalizer module 606 MHz Side loss 3/9 dB
	XE 52	Equalizer module 862 MHz Side loss 12/18 dB
	XE 52 6000	Equalizer module 606 MHz Side loss 12/18 dB
	XE 54	Ripple compensator 47-200 / 300-600 MHz 2 dB compensation in the frequency range
	XE 57	Cable compensator 6/9 dB
	XM 51	Splitter Side loss 4/4 dB
	XM 53	Splitter Side loss 8/2 dB

Pre-amplifier sets (with power supply)



VM 21 H



VM 21 I



VM 23 H



VM 23 I



Type	VM 21 H Pre-amplifier kit for masts	VM 21 I Pre-amplifier kit for masts	VM 23 H Pre-amplifier kit for masts	VM 23 I Pre-amplifier kit for masts
Input	1	1	2	2
Band	VHF + UHF	VHF + UHF	VHF III / UHF	VHF III / UHF
Frequency range	47-862 MHz	47-862 MHz	170-230 / 470-862 MHz	170-230 / 470-862 MHz
Gain T = adjustable; f = fixed	28 dB (T)	28 dB (T)	20 dB (f) / 20 dB (f)	20 dB (f) / 20 dB (f)
Remote feeding voltage	12/24 V	24 V	12/24 V	24 V
Noise figure	<3.5 dB	<3.5 dB	<3.5 dB	<3.5 dB
Output level	max. 98 dB μ V	max. 98 dB μ V	max. 98 dB μ V	max. 98 dB μ V
Connector	F-type	F-type	F-type	F-type
Power supply	12 VDC, 100 mA, 2 outputs	230 VAC/24 VDC, 50 mA, 2 outputs	12 VDC, 100 mA, 2 outputs	230 VAC/24 VDC, 50 mA, 2 outputs
Current consumption	50 mA	50 mA	50 mA	50 mA
EMC	CE	CE	CE	CE

Pre-amplifier sets (with power supply)

VM 24 H



VM 24 I



VM 25 H



VM 25 I



Type	VM 24 H Pre-amplifier kit for masts	VM 24 I Pre-amplifier kit for masts	VM 25 H Pre-amplifier kit for masts	VM 25 I Pre-amplifier kit for masts
Input	2	2	2	2
Band	VHF / UHF	VHF / UHF	VHF III / UHF	VHF III / UHF
Frequency range	47-230 / 470-862 MHz	47-230 / 470-862 MHz	170-230 / 470-862 MHz	170-230 / 470-862 MHz
Gain T = adjustable; f = fixed	28 dB (T) / 36 dB (T)	28 dB (T) / 36 dB (T)	28 dB (T) / 36 dB (T)	28 dB (T) / 36 dB (T)
Remote feeding voltage	12/24 V	24 V	12/24 V	24 V
Noise figure	<3.5 dB	<3.5 dB	<3.5 dB	<3.5 dB
Output level	max. 98 dB μ V	max. 98 dB μ V	max. 98 dB μ V	max. 98 dB μ V
Connector	F-type	F-type	F-type	F-type
Power supply	12 VDC, 100 mA, 2 outputs	230 VAC/24 VDC, 50 mA, 2 outputs	12 VDC, 100 mA, 2 outputs	230 VAC/24 VDC, 50 mA, 2 outputs
Current consumption	50 mA	50 mA	50 mA	50 mA
EMC	CE	CE	CE	CE



Selective pre-amplifiers



VM 29 H



VM 40



VM 41



VM 43



Type	VM 29 H In-house amplifier	VM 40 Pre-amplifier for masts	VM 41 Pre-amplifier for masts	VM 43 Pre-amplifier for masts
Input	1	1	1	3
Output	2	-	-	-
Band	-	UHF	UHF	VHF / UHF IV / UHF V
Frequency range / channels	-	21/29, 21/69, 38/69, 51/55, Special	21/29, 21/69, 38/69, 51/55, Special	47-230 MHz, 21-36, 38-69, Special
Gain T = adjustable; f = fixed	15 dB T VHF+UHF	22 dB	31 dB	20 dB (T) / 20 dB (T) / 27 dB (f)
Output level	-	max. 100 dB μ V	max. 100 dB μ V	max. 98 dB μ V
Remote feed voltage	-	12/24 V	12/24 V	12/24 V
Noise figure	-	<3 dB	<3 dB	<3 dB
Connector	-	F-type	F-type	F-type
Current consumption	-	50 mA	50 mA	50 mA
Accessories	-	VA 41/42 power supply	VA 41/42 power supply	VA 41/42 power supply
EMC	-	CE	CE	CE

