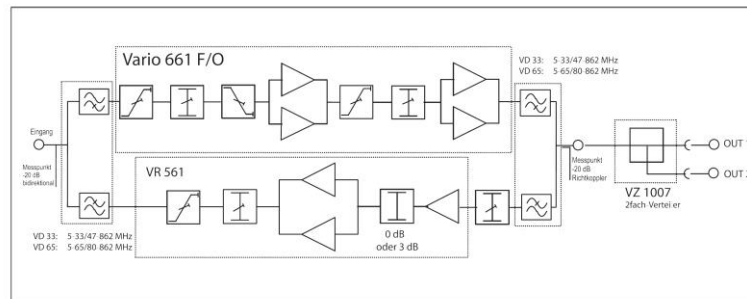


ASTRO Vario Series

UNIVERSAL BROADBAND AMPLIFIER

- Gain 37 dB / 36 dB / 35,5 dB depending on type
- Local and remote powered versions
- GaAs amplifier for high dynamic range at low power consumption
- Amplifiers available with pluggable pads or variable attenuation
- Equalizing of incoming and outgoing cable attenuation for increasing the output level
- Temperature compensated
- Pluggable interstage slope and interstage attenuation
- Flexible configuration of base unit with pluggable duplex filter (5-33 MHz VD 33, 5-65 MHz VD 65)
- return path amplifiers and input and output taps (-10 dB / -15 dB / -20 dB)
- All return path amplifiers interruption free
- Passive return path with zero module VZ 1001 realizable
- Spread investment costs by upgrading with duplex filters and return path modules as and when needed



TYPE		VARIO 561 F	VARIO 561 O
FORWARD PATH			
Gain	[dB]	36 ± 0,8	36,5 ± 0,8
Linearity	[dB]	± 0,8	± 0,8
Frequency range	[MHz]	47-862	
Output level EN 50083-3, 42 channels, (linear) for CTBA and CSOA ≥ 60 dB 7 dB Slope for 60dB KMA /60dB IMA2 EN 50083-5 / 4.2	[dBμV] [dBμV] [dBμV]	107 109 122/121	110 112 126/123
Noise figure	[dB]	5 > 800 MHz	4,8 > 800 MHz
Attenuation input	[dB]	0-20 to 0,5 dB steps	
Equalizer Input	[dB]	0-20 to 0,5 dB steps	
Base of equalizer	[MHz]	862	
Inverse equalizer, input	[dB]	0-10 to 0,5 dB steps	
Fulcrum of inverse equalizer	[MHz]	47	
Attenuation Interstageslope	[dB]	0-7 to 0,5 dB steps	
Base of interstage slope	[dB] [MHz]	0-10 to 0,5 dB steps 862	

Testpoints Input bidirectional 47/80-862 MHz Output 5-862 MHz Directional coupler	[dB] [dB]	20 ± 2 20 ± 1
Return loss Input, output, testpoint	[dB]	≥ 18 (from 40 MHz-1,5 dB/Octave)
RETURN PATH		
Frequency range	[MHz]	5-65 or 5-33
Gain		Dependant on return path module
Diplexfilter	[MHz]	5-33 / 47-862 (VD 33) 5-65 / 80-862 (VD 65)
COMMON DATA		
Feed-through current	[A]	5
Supply voltage	[V~]	24-65
Current without/with return path		12 W / 14,5 W
Impedance	[Ω]	75
Temperature	[°C]	- 15 ... + 55
Dimensions (WxHxD)	[mm]	204 x 73 x 150
Weight	[kg]	ca. 2,7
Electr. safety class		IP 54 acc. EN 60 529

WITH VARIABLE ATTENUATION AND EQUALIZER				
TYPE	VARIO 377 F	VARIO 377 O	VARIO 567 F	VARIO 567 O

TYPE		VARIO 662 F	VARIO 662 O
FORWARD PATH			
Gain	[dB]	35,5 ± 0,8	35,5 ± 0,8
Linearity	[dB]	± 1,0	± 1,0
Frequency range base unit	[MHz]	47-862	
Output level (linear) EN 50083-3, 42 channels, (linear) for CTBA and CSOA ≥ 60 dB 7 dB Slope for 60dB KMA /60dB IMA2 EN 50083-5 / 4.2	[dBμV] [dBμV] [dBμV]	112 114 129/125	112 114 129/125
Noise figure	[dB]	4,5 typ. 5 > 800 MHz	4,8 > 800 MHz
Attenuation input	[dB]	0-20 to 0,5 dB steps	
Equalizer input Base of equalizer	[dB] [MHz]	0-18 to 0,5 dB steps 862	
Inverse equalizer, input Fulcrum of inverse equalizer	[dB] [MHz]	0-10 to 0,5 dB steps 47	
Attenuation interstageslope Base of interstage slope	[dB] [dB] [MHz]	0-7 to 0,5 dB steps 0-10 to 0,5 dB steps 862	
Testpoints Input (bidirectional) 47/80-862 MHz Output 5-862 MHz (Directional coupler)	[dB] [dB]	20 ±2 20 ±1	
Input, output, testpoint	[dB]	≥ 18 (from 40 MHz - 1,5 dB/Octave)	
RETURN PATH			
Frequency range	[MHz]	5-65 or 5-33	
Gain		Dependant on return path module	

Diplexfilter	[MHz]	5-33 / 47-862 (VD 33) oder 5-65 / 80-862 (VD 65)	
COMMON DATA			
Feed through current	[A]	5	---
Supply voltage	[V~]	24-65	230
Current without/with return path		13 / 15,5 W	24 / 29 VA
Impedance	[Ω]	75	
Temperature	[°C]	- 15 ... + 55	
Dimensions (WxHxD)	[mm]	204 x 73 x 150	
Weight	[kg]	ca. 2,7	
Electr. safety class		IP 54 acc. EN 60 529	

WITH VARIABLE ATTENUATION AND EQUALIZER		
TYP	VARIO 667 F	VARIO 667 O

ASTRO Vario Series

MODULAR BROADBAND AMPLIFIER

- Configuration Pads
- 15 MHz high pass in the back
- Four measuring points
- Stationary powered and remotely powered version available



TYPE		VARIO 682 F	VARIO 682 O
FORWARD PATH			
Gain	[dB]	40 ± 1 / > 862 MHz ± 1 dB	
Maximum output level 42 channels / linear 42 channels / 7 dB Slope	[dBµV]	113 (CTBA & CSOA ≥ 60 dB) 15	
RETURN PATH			
Frequency range	[MHz]	5-65 / 5-33	
Gain	[dB]	depending on the return path module	
Diplexfilter	[MHz]	5-33 / 47-862 (VD 33), 5-65 / 80-1000 (VD 65)	
COMMON DATA			
Frequency range	[MHz]	47-1006 with 15 MHz High pass	
Ripple inclusive temperature drift	[dB]	± 0,8 / > 862 MHz ± 1 dB	
Noise	[dB]	typ. 5,5 / > 862 MHz: typ. 6	
Attenuation input	[dB]	0-20 (0,5 dB steps)	
Attenuation interstage	[dB]	0-7 (0,5 dB steps)	
Equalizer input	[dB]	0-20 (0,5 dB steps)	
Equalizer interstage	[dB]	0-10 (0,5 dB steps)	
Fulcrum of equalizer	[MHz]	1006	
Inverse equalizer input	[dB]	0-10 (0,5 dB steps)	
Fulcrum inverse equalizer	[MHz]	47	
Input measuring point	[dB]	return path 20 ± 1 / forward path 20 ± 2	
Output measuring point	[dB]	20 ± 1 (directional coupler) 5-862 MHz	
Input with / without return path	[W]	19,5 / 17 (F) 18 / 16; 35 / 32 VA (O)	
Measurement points		4	
COMMON DATA			
Connectors	[Ω]	IEC Plug or PG 11	F Plug 75
Feed through current	[A]	5	--
Supply voltage	[V~]	24-65 / 50 bzw. 60	230 / 50
Temperature range	[°C]	-15...+55	
Dimensions (WxHxD)	[mm]	204 x 73 x 150	
Weight	[kg]	ca. 2,7	
Electr. safety class		IP 54 acc. EN 60 529	

TYPE		VARIO 683 F	VARIO 683 O
FORWARD PATH			
Gain	[dB]	40 ± 0,8	
Maximum output level 42 channels / linear 42 channels / 7 dB Slope	[dBμV]	113 (CTBA & CSOA ≥ 60 dB) 115	

RETURN PATH			
Frequency range	[MHz]	5-65 / 5-33	
Gain	[dB]	depending on the return path module	
Diplexfilter	[MHz]	5-33 / 47-862 (VD 33), 5-65 / 80-1000 (VD 65)	
COMMON DATA			
Frequency range	[MHz]	47-862	
Ripple incl. Temperature drift	[dB]	± 0,8 incl. Temperature drift	
Noise	[dB]	typ. 5,5	
Attenuation input	[dB]	0-20 (0,5 dB steps)	
Attenuation interstage	[dB]	0-7 (0,5 dB steps)	
Equalizer input	[dB]	0-20 (0,5 dB steps)	
Equalizer interstage	[dB]	0-10 (0,5 dB steps)	
Fulcrum of equalizer	[MHz]	862	
Inverse equalizer input	[dB]	0-10 (0,5 dB steps)	
Fulcrum inverse equalizer	[MHz]	47	
Input measuring point	[dB]	return path 20 ± 1 / forward path 20 ± 2	
Output measuring point	[dB]	20 ± 1 (directional coupler) 5-862 MHz	
Input with / wihout return path	[W]	19,5 / 17 (F) 18 / 16; 35 / 32 VA (O)	
Measurement points		4	
COMMON DATA			
Connectors	[Ω]	IEC Plug or PG 11	F Plug 75
Feed through current	[A]	5	—
Supply voltage	[V~]	24-65 / 50 bzw. 60	230 / 50
Temp. range	[°C]	-15...+55	
Dimensions (WxHxD)	[mm]	204 x 73 x 150	
Weight	[kg]	ca. 2,7	
Electr. safety class		IP 54 acc. EN 60 529	