Compact amplifier

VGF/VGO 8041

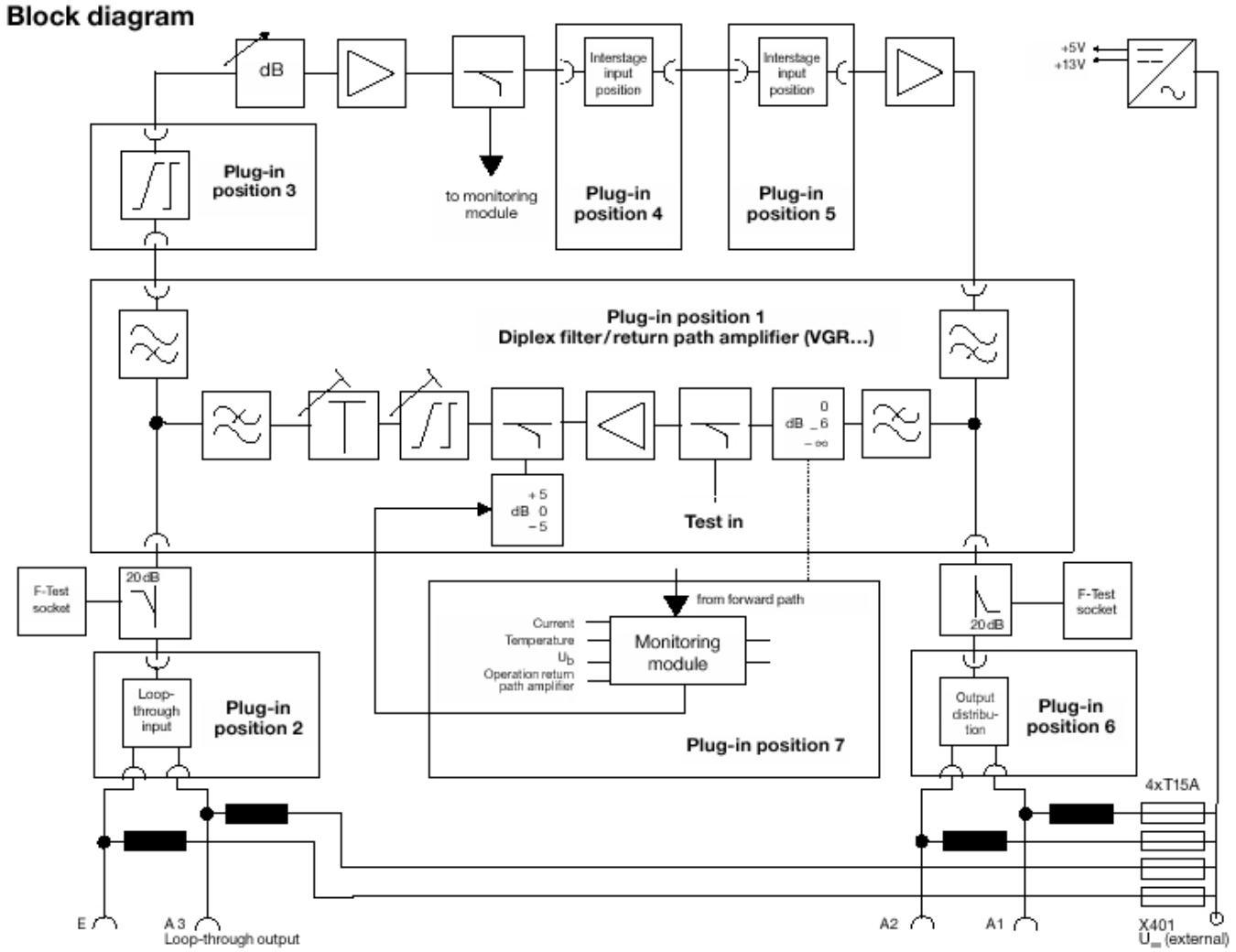
The VGF 8041 achieves a gain of 41 dB, an extremely low noise figure of typical 5.5 dB at 862 MHz and offers a very high output level at the lowest inherent distortions thanks to the latest GaAs technology. The amplifier allows economical network extensions to 862 MHz even for large span lengths between the amplifier points. In the past, additional amplifiers hat to be installed for this purpose. Thanks to modern housing technology with optimal direct heat dissipation from the power stages, the amplifiers provide the highest reliability and service life. The VGF 8041 has a plug-in position for a monitoring transponder (KOM or HMS) as well as a plug-in position for a return path amplifier with diplex-filter (30, 60 or 65 MHz). With appropriate accessories, cable mounting is possible. A locally fed version, the VGO 8041, is also available.

Technical data:

Type		**VGF 8041 Remote feed**	**VGO 8041 Mains feed**
Order no.		24410024	24410026
Forward path Frequency range	MHz	47-862/80-862/85-862	
Nominal gain	dB	41	
Impedance	Ω	75	
Return loss at 40 MHz	dB	≥ 18-1,5/Oct.	
Adjustment range of amplificat.	dB	0-17	
Adjustment range of equalisat.	dB	0-15 (separate plug-in module)	
Typ. output level[1]) for 60 dB signal-to noise ratio CENELEC plan flat, CSO[2])/CTB 10 dB slope CSO[2])/CTB	dBµV dBµV	120/113 116/114	
Typ. noise figure[3])	dB	4,0/4,5/5,5	
Return path[4]) Frequency range	MHz	5-30/5-60/5-65	
Nominal gain[5])	dB	23	
Return loss	dB	≥20	
Impedance	Ω	75	
General Interfering radiation acc. to EN 50083-2	dBpW	<20	
Supply voltage	V~	28-90	230
Power draw	W	20-23	
Max. remote feed current	A	6	-
Dimensions (B x H x T)	mm	218 x 172 x 142	
Weight	kg	3,0	

1) Measurement conditions: CENELEC channel plan, 42 channels, output level: 110 dBµV, calculated values
2) For channel 2 (47-54 MHz) 3 dB or less
3) Equalisation and attenuation = 0 dB, zero card on loop-through input, typical values for 450/606/862 MHz
4) With return path module VGR 30, VGR 34 or VGR 31
5) Refers to the connections of the basic unit.

Block diagram



Basic units, plug-in modules and components

Basic unit

Amplifier basic unit with power supply unit, 41 dB amplification in the forward path, without zero cards.

Return/forward path filters (The plug-in card is required for operation).

The plug-in position **1** can be occupied as follows:

		Order no.
VGR 00	Zero card, amplifier can only be operated In the forward path.	232144
VGR 30	Return path module, 25 dB, 5-30/47-862 MHz Pushpull, supports KOM/SIMS	232194
VGR 34	Return path module, 25 dB, 5-60/80-862 MHz Pushpull, supports KOM/SIMS	232211
VGR 31	Return path module, 25 dB, 5-65/85-862 MHz Pushpull, supports KOM/SIMS	232195

Loop-through input (The plug-in card is required for operation).

The plug-in position **2** can be occupied as follows:

			Order no.
EAC 60	Tap-off	Loop-through E → A3: 1,7 dB 10 dB tap loss in the amplifiers	272018
EAC 63	Tap-off	Loop-through E → A3: 2,0 dB 6 dB tap loss in the amplifiers	272673
EAC 64	Tap-off	Loop-through E → A3: 0,5 dB 14 dB tap loss in the amplifiers	272674
EBC 60	Splitter	Loop-through E → A3: 4,0 dB 4 dB tap loss in the amplifiers	272611
ERT 99	Zero card	Without loop-through input	273681

Equalisers (The plug-in card is required for operation).

The plug-in positions **3** and **4** can be occupied as follows:

ERX 20	Variable equaliser	0-15 dB, up to 447 MHz	273678
ERX 21	Variable equaliser	0-15 dB, up to 606 MHz	273679
ERX 22	Variable equaliser	0-15 dB, up to 862 MHz	273680
ERX 23	Variable equaliser	7-16 dB, up to 862 MHz	273686
ERX 24	Variable equaliser	15-24 dB, up to 862MHz	273687
ERX 25	Fixed equaliser	7,0 dB, up to 862MHz	
	with fixed attenuation	0-10 dB, up to 862 MHz	273723
ERT 30	Equaliser zero card	0 dB, up to 862 MHz	273630
ERT 34 C	Fixed equaliser	4 dB, up to 862 MHz	24510021
ERT 31	Fixed equaliser	7 dB, up to 862 MHz	273631
ERT 31 S	Fixed equaliser	9 dB, up to 862 MHz	273671
ERT 32	Fixed equaliser	11 dB, up to 862 MHz	273632
ERT 34 A	Fixed equaliser	14 dB, up to 862 MHz	273706
ERT 33	Fixed equaliser	17 dB, up to 862 MHz	273633
ERT 34 B	Fixed equaliser	21 dB, up to 862 MHz	273707
ERT 35	Fixed equaliser,	7,0 dB, up to 862MHz	
	with fixed attenuation	10 dB, up to 862 MHz	273635

Attenuators/equalisers (The plug-in card is required for operation).

The plug-in position **5** can beoccupied as follows:

ERT 27 A	Fixed equaliser	2 dB, up to 862 MHz	273688
ERT 27	Fixed equaliser	3 dB, up to 862 MHz	273627
ERT 27 B	Fixed equaliser	4 dB, up to 862 MHz	273689
ERT 28	Fixed equaliser	6 dB, up to 862 MHz	273628
ERT 29	Fixed equaliser	9 dB, up to 862 MHz	273629
ERT 30	Equaliser zero card	0 dB, up to 862 MHz	273630
ERT 34 C	Fixed equaliser	4 dB, up to 862 MHz	24510021
ERT 31	Fixed equaliser	7 dB, up to 862 MHz	273631
ERT 31 S	Fixed equaliser	9 dB, up to 862 MHz	273671
ERT 32	Fixed equaliser	11 dB, up to 862 MHz	273632
ERT 34 A	Fixed equaliser	14 dB, up to 862 MHz	273706
ERT 33	Fixed equaliser	17 dB, up to 862 MHz	273633
ERT 34 B	Fixed equaliser	21 dB, up to 862 MHz	273707
ERT 35	Fixed equaliser	7 dB, up to 862 MHz	
	with fixed attenuation	10 dB, up to 862 MHz	273635

Output tap-offs/splitter (The plug-in card is required for operation).

The plug-in position **6** can be occupied as follows:

			Order no.
EAC 60	Tap-off	10/1,7 dB (1 x trunk,1 x bridge)	272018
EAC 63	Tap-off	6/2 dB (1 x trunk,1 x bridge)	272673
EAC 64	Tap-off	14/0,5 dB (1 x trunk,1 x bridge)	272674
EBC 60	2-way splitter	(2 identical outputs)	272611
ERT 99	Zero card	(only 1 output)	273681

Monitoring module as option

The plug-in position **7** can be occupied as follows:

TVM 801/V	monitoring module KOM	26210005
TVM 840/V	monitoring module HMS, 5-8 MHz	26210033
TVM 840/V	monitoring module HMS, 8-13 MHz	26210032
TVM 840/V	monitoring module HMS, 13-19 MHz	26210037

External remote power feeding

GMZ 90	**Remote feeding filter attachment**	**279150**

Panel jacks PG 11, panel jacks 5/8“, panel jacks 90°,
Couplers and adapters on request.