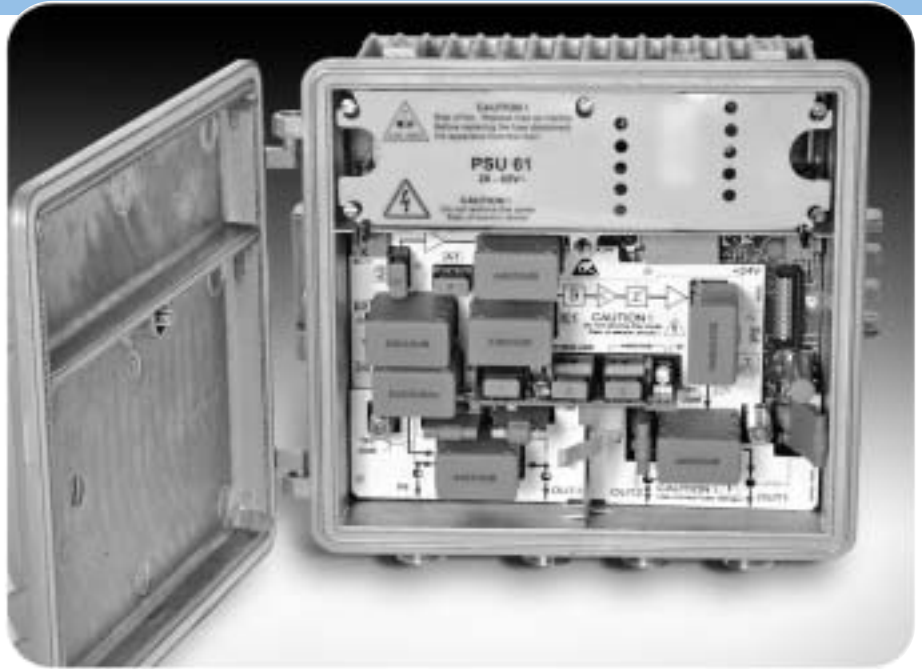


Flex Max400

Cabinet Network Amplifiers



- **HFC applications with high numbers of cascaded amplifiers**
- **Headend combiner/launch amplifier**
- **GaAs technology for improved system performance**
- **HFC applications where AGC controlled alignment is requested**
- **Plug-in diplex filters allow future upgrades**
- **Swappable power supply decreases service and maintenance costs**

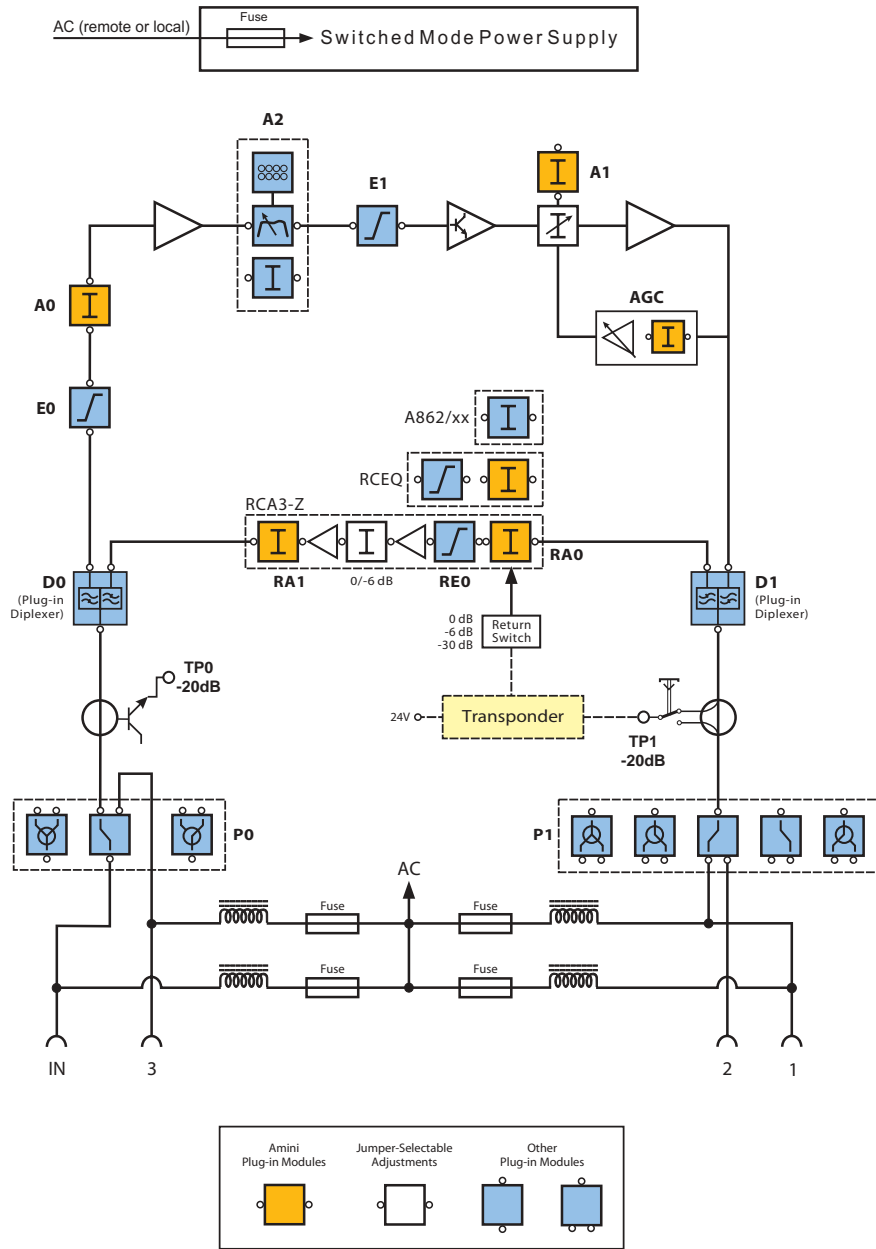
The C-COR Flex Max400 Cabinet Network Amplifier is part of a family of products designed to provide high quality transmission of analog and digital signals over broadband, multi-service HFC networks.

The Flex Max400 Cabinet Network Amplifier combines advanced RF technology with installer-friendly features to deliver signals to the subscriber at lower expense. The built-in features provide solutions for a wide range of HFC distribution applications.

The effects of coaxial cables, and passive and active components on the frequency response can be corrected easily in the Flex Max400 with the CM862 plug-in control module.

Features

- Control module provides extremely flat frequency response with correction in four different frequency ranges allowing for long cascades and minimal performance degradation
- AGC corrects attenuation changes due to temperature and guarantees constant output level, which increases reliability and lowers maintenance/service costs
- Modular design and high flexibility enable an upgrade path for future services without a high initial investment
- GaAs technology results in fewer active components, improved system performance, and reduced total system costs
- Optional housing sealing provides enhanced watertightness for aerial applications and manhole installations per IP67 protection standards
- Switchable forward and return directional testpoints at the output by pushing a button
- Electronic testpoint at the input for negligible insertion loss and improved CNR



Flex Max400 Cabinet Network Amplifier Block Diagram

Specifications

General Specifications

Band Coverage	47/54/70/85 to 862MHz
Frequency Response	±0.5dB
Noise Figure (Note 1)	6dB, typ. at full gain
Return Loss (Note 1)	> 18dB at 47MHz (-1.5dB/octave up to 862MHz)
Gain (Note 1)	37dB without AGC; 34dB with AGC
Impedance	75 Ohm
Testpoint	-20dB
Power Consumption, includes supply efficiency	18W with return channel amplifier

Performance Specifications (Note 2)

Output Level for 64dB CTB performance, typ.	110dBμV (50dBmV)
Output Level for 64dB CSO performance, typ.	110dBμV (50dBmV)
Recommended Operation Level	98 to 102dBμV (38 to 42dBmV)

Automatic Gain Control AGC 030

Gain Control Range	-3 to 3dB
Accuracy	±0.5dB
Pilot Frequency (vision carrier)	170 to 230MHz

Active Return Channel Amplifier RCA3Z 25/xx

Band Coverage	5 to 30/42/55/65MHz
Module Gain (Note 3)	25dB
Station Gain	23dB, with diplex filters at full gain

Passive Return Channel Modules

RCEQ Z 65	Return channel equalizer, frequency compensated. 4dB insertion loss. Attenuator and equalizer with Amini PADs.
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Physical and Environmental Specifications

Dimensions (W x H x D)	221 x 92 x 187mm (8.8 x 3.9 x 7.5 in.)
Weight	2.5kg (5.5 lbs)
Temperature Range	-20 to 60°C (-4 to 140°F)

Reliability

MTBF	> 50 years
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Plug-in Modules

Return Channel Amplifier, 25dB gain	RCA3Z 25/30MHz, RCA3Z 25/42MHz, RCA3Z 25/55MHz, RCA3Z 25/65MHz
Diplexers	D30/47MHz, D42/54MHz, D55/70MHz, D65/85MHz
Automatic Gain Control (E06, E07)	AGC030/xx, xx=175.25, 182.25, 189.25, 191.25MHz
Control Module	CM862/00MHz, CM862/47MHz, CM862/54MHz, CM862/85MHz
Attenuators, fixed	Amini PADs 0 to 20dB; A862/0dB Bridger; A862/2, 4, 6, 8, 10dB
Splitter	S3.5/3.5dB
Directional Couplers	TAP8/1.5dB, TAP10/1dB, TAP1/10dB, TAP16/1dB, TAP1/16dB
Cable Equivalence	CE862/2, 4, 6, 8dB
Equalizers	E862/xx, xx=2, 4, 6, 8, 10, 12, 14, 16dB E606/xx, xx=2, 4, 6, 8, 10, 12, 14, 16, 18, 20dB
Return Channel, passive	RCEQ Z 65

Note:

- Including diplexers and 0dB PADs.
- According to EN50083-3, 42 CENELEC channel loading, and with diplexer modules and 8dB slope.
- An on-board jumper can reduce gain by 6dB.

Specifications subject to change without notice

Ordering Information

							1	2	3	4	5		6	7	8	9
F	M	4	0	0	-	A	N	N	x	x	-	x	F	S	5	

1 Platform	
A	Standard

2 Diplexer	
N	No on-board diplexer
	a) Must order diplexer separately.

3 Return Channel Amplifier	
N	No on-board return channel amplifier
	a) Must order return channel amplifier separately.

4 Power Supply	
2	Local powering (90–250VAC)
6	Remote powering, Europe (28–65VAC)
9	Remote powering, USA (40–90VAC)
	a) Select "N" in #5 block, Fuse .

5 Fuse	
A	Standard 10A fuse
N	No fuse
S	Shorting bar
	a) For power passing up to 7A only.
	b) In case of local powering. Select "2" in #4 block, Power Supply .
	c) Up to 10A.

6 RF Adapter	
3	3.5/12 type
F	F-type
I	IEC
P	PG11 entry only; no adapter
R	Reduction ring; PG11 to 5/8-inch

7 RF Testpoint Connector	
F	F-type, female

8 Lid Type	
S	Standard lid

9 Protection	
5	IP55

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