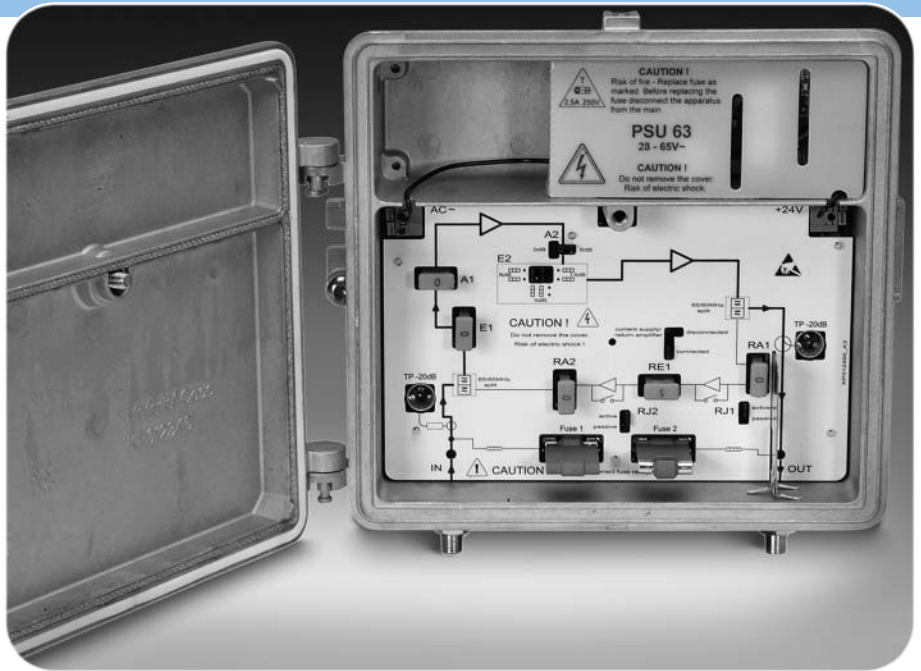


Flex Max220

Basic 65/85MHz

Distribution Amplifier



Applications

- **End-of-line distribution amplifier or tap driver**
- **Medium and large multi-dwelling unit architectures**

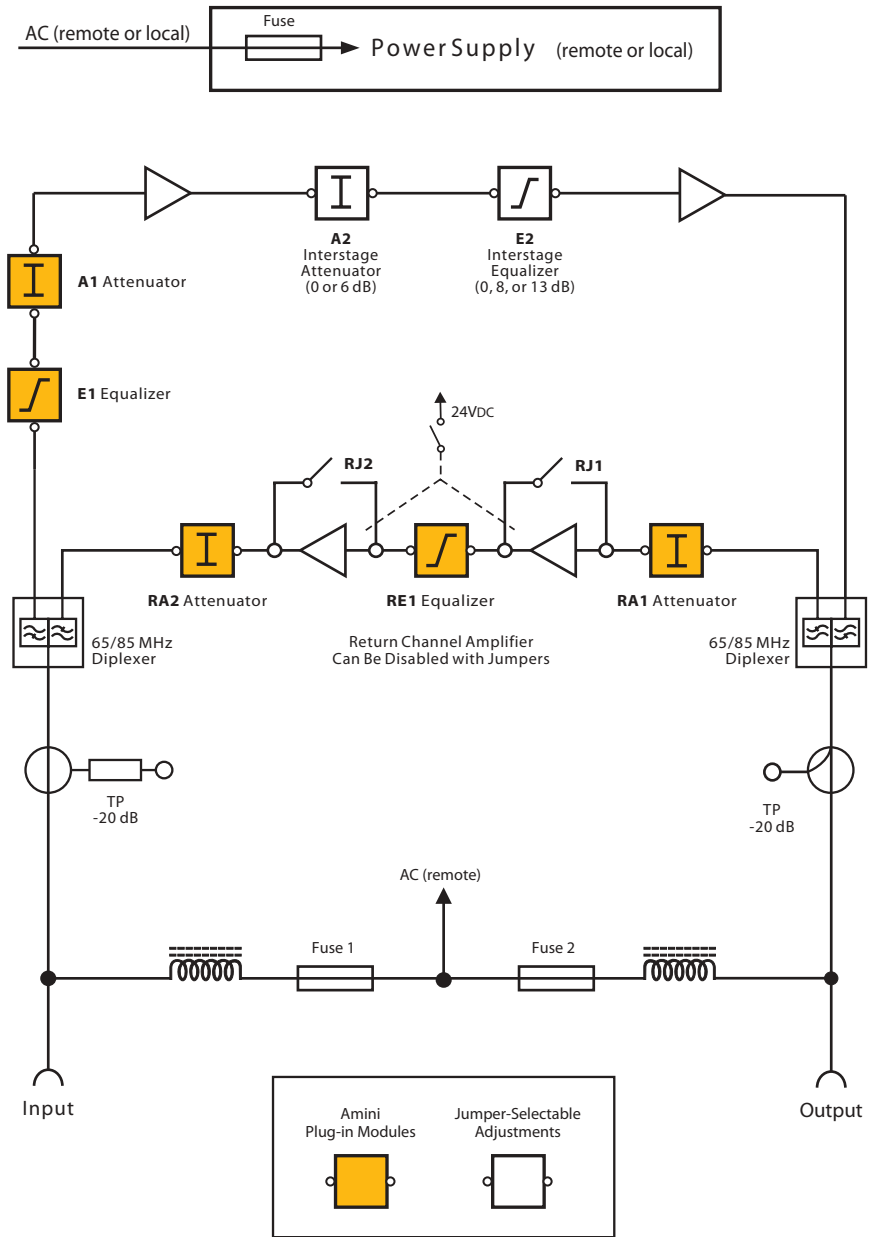
The C-COR Flex Max220 Basic Distribution Amplifier combines advanced RF technology with installer friendly features to deliver signals to the subscriber at lower expense. The Flex Max220 Basic Amplifier is dedicated to systems in which input sources are cable drops.

The Flex Max220 Basic Amplifier is an advanced end-of-line distribution amplifier to meet the requirements for modern HFC multi-transport networks. Applied robust Gallium Arsenide technology improves system performance and drives total system costs down. The Flex Max220 Basic has a convenient input equalizer built onto the motherboard, enabling the equalization value to be achieved with attenuators. This enables operators to carry only one type of plug-in accessory and, thus, drastically reduce operational expenses. The on-board interstage equalizer has jumper-selectable 0, 8, or 13dB tilt options, and the on-board interstage attenuator has jumper-selectable 0 or 6dB options. With its 37dB gain, the Flex Max220 Basic covers all applications for modern high performance distribution amplifiers.

Features

- Apartment amplifier with GaAs hybrid
- High level power doubler output
- Input equalizer and attenuator set in 1dB steps with Amini PADs
- Jumper-selectable interstage attenuator with 0/6dB options
- Jumper-selectable interstage equalizer with 0/8/13dB tilt options

Flex Max220 Basic Distribution Amplifier



Flex Max220 Basic Distribution Amplifier Block Diagram

Specifications

General Specifications

Band Coverage	85 to 862 MHz
Frequency Response	±0.75 dB
Noise Figure	8.0 dB, typ.
Return Loss, excludes diplexer crossover range	> 18 dB at 40 MHz (–1.5 dB/octave up to 862 MHz)
Gain, includes diplexers	37 dB ± 1 dB
Impedance	75 Ohm
Testpoints	Bidirectional TP: –20 dB forward I/P; –18.5 dB return O/P Directional coupler TP: –20 dB forward output

Performance Specifications

@ Full Gain (Note 1)

CTB @ 112 dB μ V (52 dBmV)	≤ –60 dBc
CSO @ 112 dB μ V (52 dBmV)	≤ –60 dBc

@ 31 dB Gain (Note 2)

CTB @ 110 dB μ V (50 dBmV)	≤ –60 dBc
CSO @ 110 dB μ V (50 dBmV)	≤ –60 dBc

Active Return Channel Amplifier, can be disabled with jumpers

Band Coverage	5 to 65 MHz
Frequency Response, port to port	±0.75 dB
Noise Figure	7.0 dB, typ.; 8.0 dB, max.
Return Loss	> 18 dB
Station Gain, with diplexers and 0 dB Amini plug-ins	
With both amplifier stages	24 dB
With one amplifier stage	11 dB
Passive	–3.5 dB
Output Level, IM2 ≥ 60 dB	110 dB μ V (50 dBmV)

Powering Specifications

Remote Power Supply	28 to 65 VAC, 47 to 63 Hz
Local Power Supply	90 to 250 VAC, 47 to 63 Hz
Power Consumption, typ., 85% efficiency	16 W
Power Passing Capability	
RF Input and Output	3 A, max.
HUM, at max. remote feeding	< –60 dBc

Plug-In Modules

Input and Return Path Attenuators	Amini: 0 to 20 dB, in 1 dB increments
Input and Return Path Equalizers, fixed for up to 862 MHz	Amini: 0 to 16 dB, in 1 dB increments

Physical and Environmental Specifications

Dimensions (W x H x D)	221 x 92 x 187 mm (8.8 x 3.9 x 7.5 in.)
Weight, approx.	2.5 kg (5.5 lbs)
Connectors	
RF Input and Output Ports	3.5/12; 5/8-inch; F-type, female; IEC
RF Testpoints	F-type, male
Local Power Supply	PG9
Operating Temperature Range	–40 to 60°C (–40 to 140°F), without permanent failure –20 to 60°C (–4 to 140°F), guaranteed
Storage Temperature Range	–40 to 70°C (–40 to 160°F)
Protection According to IEC 529	IP55

Notes:

- According to EN 50083-3, 41 CENELEC channel loading, and with 8 dB slope and 0 dB interstage attenuation..
- According to EN 50083-3, 41 CENELEC channel loading, and with 8 dB slope and 6 dB interstage attenuation.

Specifications subject to change without notice

Ordering Information

						1	2	3	4	5		6	7	8	9		10
F	M	2	2	0	-	B	x	A	x	x	-	x	M	N	5	-	x

1 Platform	
B	Basic

2 Frequency Split		
4	42/54MHz	a
6	65/85MHz	b
a) Select "G", "H", "S", or "U" in #10 block, Country Deviations .		
b) Select "A", "C", or "E" in #10 block, Country Deviations .		

3 Return Channel Amplifier	
A	Active return

4 Power Supply		
2	Local powering (90–250VAC)	a
6	Remote powering (28–65VAC)	b
9	Remote powering (40–90VAC)	c
a) Must select "N" in #5 block, Fuse .		
b) Must select "6" in #2 block, Frequency Split .		
c) Must select "4" in #2 block, Frequency Split .		

5 Fuse		
A	Standard 4A fuse	a
N	No fuse	
S	Shorting bar	
a) In case of local powering. Select "2" in #4 block, Power Supply .		

6 RF Adapter	
3	3.5/12 type
5	5/8-inch
F	F-type
I	IEC

7 RF Testpoint Connector	
M	F-type, male

8 Status Monitoring	
N	No status monitoring

9 Protection	
5	IP55

10 Country Deviations (defines mains plug and country certifications)		
N	No power cord (remote powering)	a
A	Australia	b,c
C	China	b,c
E	Europe	b,c
G	Argentina (IRAM2073 connector)	b,d,e
H	Chile	b,d,e
S	Standard, stripped, no connector	b,d,e
U	South America, US-type connector	b,d,e
a) Select "6" or "9" in #4 block, Power Supply .		
b) Select "2" in #4 block, Power Supply .		
c) Must select "6" in #2 block, Frequency Split .		
d) IRAM certifications and special labels included.		
e) Must select "4" in #2 block, Frequency Split .		

Americas Headquarters
 60 Decibel Road • State College • Pennsylvania • 16801 • USA
 T: 1-814-238-2461 T: 1-800-233-2267 F: 1-814-238-4065

EuroPacific Headquarters
 Transistorstraat 44-V • 1322 CG Almere • The Netherlands
 T: 31-36-546 1111 F: 31-36-536 4255

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