

MDA1036x COMPACT DISTRIBUTION AMPLIFIER



- Downstream frequency range up to 1006 MHz
- Upstream frequency range up to 204 MHz
- Cost-effective solution

GENERAL DESCRIPTION

A member of our popular MDA compact product family suited to the DOCSIS 3.0 frequency band. Beyond its extended bandwidth the device provides all the advantages of the predecessor type, like the low power consumption, the high output RF level and the very easy alignment. Further the return path chain of the amplifier contains a universal expansion socket, which can take in e.g. an auxiliary filter.

TECHNICAL SPECIFICATIONS

Forward path RF parameters

Amplifier type	GaAs-PD MMIC
Gain [dB]	36±1
Frequency range [MHz]	47...1006 ⁽¹⁾
Equaliser breakpoint frequency [MHz]	862, 1006 ⁽²⁾
RF attenuator range [dB]	0...22 ⁽³⁾
RF equaliser range [dB]	0...16 ⁽³⁾
Flatness [dB]	±0.75
Return loss (40MHz -1.5dB/octave) [dB]	>18
RF testpoint attenuation [dB]	30±1
CTB [dB]	-69 ⁽⁴⁾
CSO [dB]	-68 ⁽⁴⁾
Noise-to-power ratio (NPR) maximum / Dynamic range of NPR > 42 [dB]	54 / 36 ^{(5) (6)}
Noise figure [dB]	5

Specifications are subject to change without notice!

Reverse path RF parameters

Gain [dB]	20±1
Frequency range [MHz]	5...204
Diplex filter [MHz]	65/85, 204/258
RF attenuator range [dB]	0...22 ⁽³⁾
RF equaliser range [dB]	0...12 ⁽³⁾
Flatness [dB]	±0.75
Input return loss (40MHz -1.5dB/octave) [dB]	>18
RF testpoint attenuation [dB]	30±1

General parameters**MDA1036R-xxx MDA1036L-xxx**

RF connector	PG11, (5/8", F)	
Power supply voltage [VAC]	~ 30...65, □ 35...90	~ 230±20% 50 Hz
Maximum power consumption [W]	10	11
Maximum current feed-through [A]	10	-
Hum modulation [dB]	70	-
Screening factor [dB]	80	
Degree of protection	IP65	
Operational temperature range [°C]	-40...+60	
Dimensions [mm]	202x146x80	
Weight [kg]	1.5	

(1) Lower frequency limit is defined by the diplexer

(2) Breakpoint is defined by the mounted equaliser modules (only in case of MDA1036x-B type!)

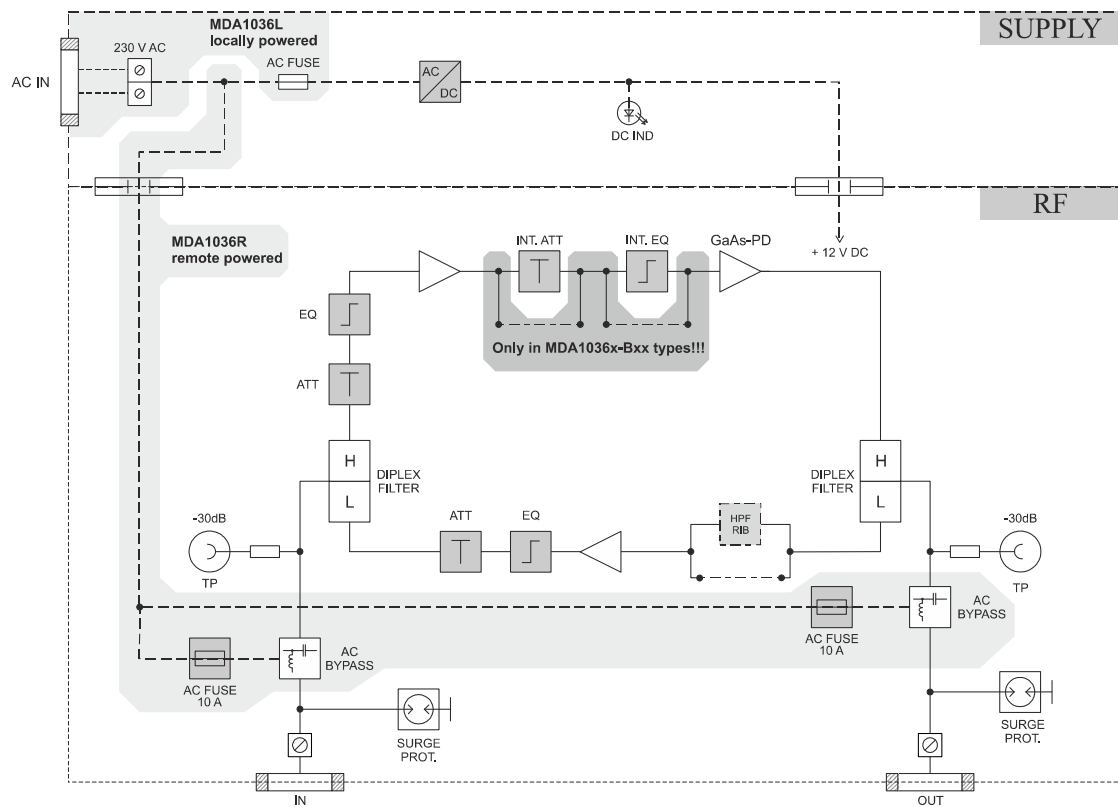
(3) Type A: 1 dB steps; Type B: 2 dB steps (in case of attenuators 1 dB steps are possible between 0 dB and 5 dB)

(4) 44 dBmV, flat tilt, 77 channels

(5) Measured with flat full spectrum load between 85 and 862 MHz

(6) NPR_{max} at TCP = 51 dBmV

BLOCK DIAGRAM



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ORDERING INFORMATION

M	D	A	1	0	3	6	X	-	X	X	X
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Power supply type

L	Local powering
R	Remote powering

Type of the alignment modules

A	JXP modules
B	COMTECH modules

Type of the duplex filter

65	Built-in 65/85MHz duplex filter (type A)
204	Built-in 204/258MHz duplex filter (type B)

Option

Required modules

Ordering codes

Coax connecting option	PG11-5/8" adaptor	PG11-5/8
Coax connecting option	PG11-F adaptor	PG11-F
Return path module option (HPF filter)	1pc HPF20	HPF20

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