

MDA-E-1240 DISTRIBUTION AMPLIFIER



- Downstream frequency range up to 1218 MHz
- Upstream frequency range up to 204 MHz
- Optional connection to Monitoring System
- Electronic configuration interface
- Replaceable duplex filter
- Ingress management

GENERAL DESCRIPTION

The MDA-E-1240 amplifier integrates the advantages of the small sized, high output level MDA product family with the flexibility of the electronic alignment. The choosable type of the output stage, the between 862 MHz and 1218 MHz switchable bandwidth and the three available versions of duplex filter ensure that the device can fit to any kind of networks used today. The device is able to forward the remote powering current, this allows to use it either as a house amplifier or a line amplifier.

TECHNICAL SPECIFICATIONS

Forward path RF parameters	MDA-E-1240C	MDA-E-1240CH
Gain [dB]	40±1	
Frequency range [MHz]	85...1218, 105...1218, 258...1218	
Equaliser breakpoint frequency [MHz]	1218	
Input RF attenuator range [dB]	0...20 ⁽¹⁾	
Input RF equaliser range [dB]	0...18 ⁽¹⁾	
Interstage RF attenuator range [dB]	0...20 ^{(1) (2)}	
Interstage RF equaliser range [dB]	0...18 ^{(1) (2)}	
Flatness [dB]	±0.75	
Return loss (40MHz -1.5dB/octave) [dB]	>18	
RF testpoint attenuation [dB]	20±1	
Output level at 112 SC-QAM channels with 12 dB tilt and PreBER<10 ⁻⁹ [dBμV]	108	111
CTB [dB]	-66 ⁽³⁾	-66 ⁽⁴⁾
CSO [dB]	-65 ⁽³⁾	-65 ⁽⁴⁾
CXM [dB]	-65 ⁽³⁾	-65 ⁽⁴⁾
Noise-to-power ratio (NPR) maximum / Dynamic range of NPR > 42 [dB]	54 / 20 ⁽⁵⁾	55 / 20 ⁽⁶⁾

Specifications are subject to change without notice!

Reverse path parameters

Gain [dB]	27±1
Frequency range [MHz]	5...204
Diplex filter [MHz]	65/85, 85/105, 204/258
Input RF attenuator range [dB]	0...20 ⁽¹⁾
Interstage RF attenuator range [dB]	0...20 ⁽¹⁾
Interstage RF equaliser range [dB]	0...18 ⁽¹⁾
Flatness [dB]	±0.5
Input return loss (40MHz -1.5dB/octave) [dB]	>18
RF testpoint attenuation [dB]	20±1
Ingress control switch (RSW) states	0dB/-6dB/-50dB/HPF20
Output level at 24 SC-QAM channels with flat tilt and PreBER<10 ⁻⁹ [dBμV]	106
Noise-to-power ratio (NPR) maximum / Dynamic range of NPR > 36 [dB]	60 / 34 ⁽⁷⁾

General parameters

	MDA-E-1240xL	MDA-E-1240xR
RF connector	„F“, PG-11 or 5/8”	
Power supply voltage [VAC]	230±20%	~ 30..65, □ 35...90
Maximum power consumption [W]	13 / 17 ⁽⁸⁾	14 / 18 ⁽⁹⁾
Maximum current feed-through [A]	-	4
Hum modulation [dB]	-	70
Screening factor [dB]	80	
Degree of protection	IP54	
Temperature range [°C]	-20...+60	
Dimensions [mm]	202x146x80	
Weight [kg]	1.5	

(1) Adjustable in 0.5 dB steps

(2) The sum of the interstage attenuator and equalizer value mustn't exceed 20 dB

(3) 42 dBmV at 1218 MHz, flat tilt, 99 analog channels

(4) 45 dBmV at 1218 MHz, flat tilt, 99 analog channels

(5) Measured with flat full spectrum load between 85 and 1218 MHz, NPR max at TCP = 60 dBmV

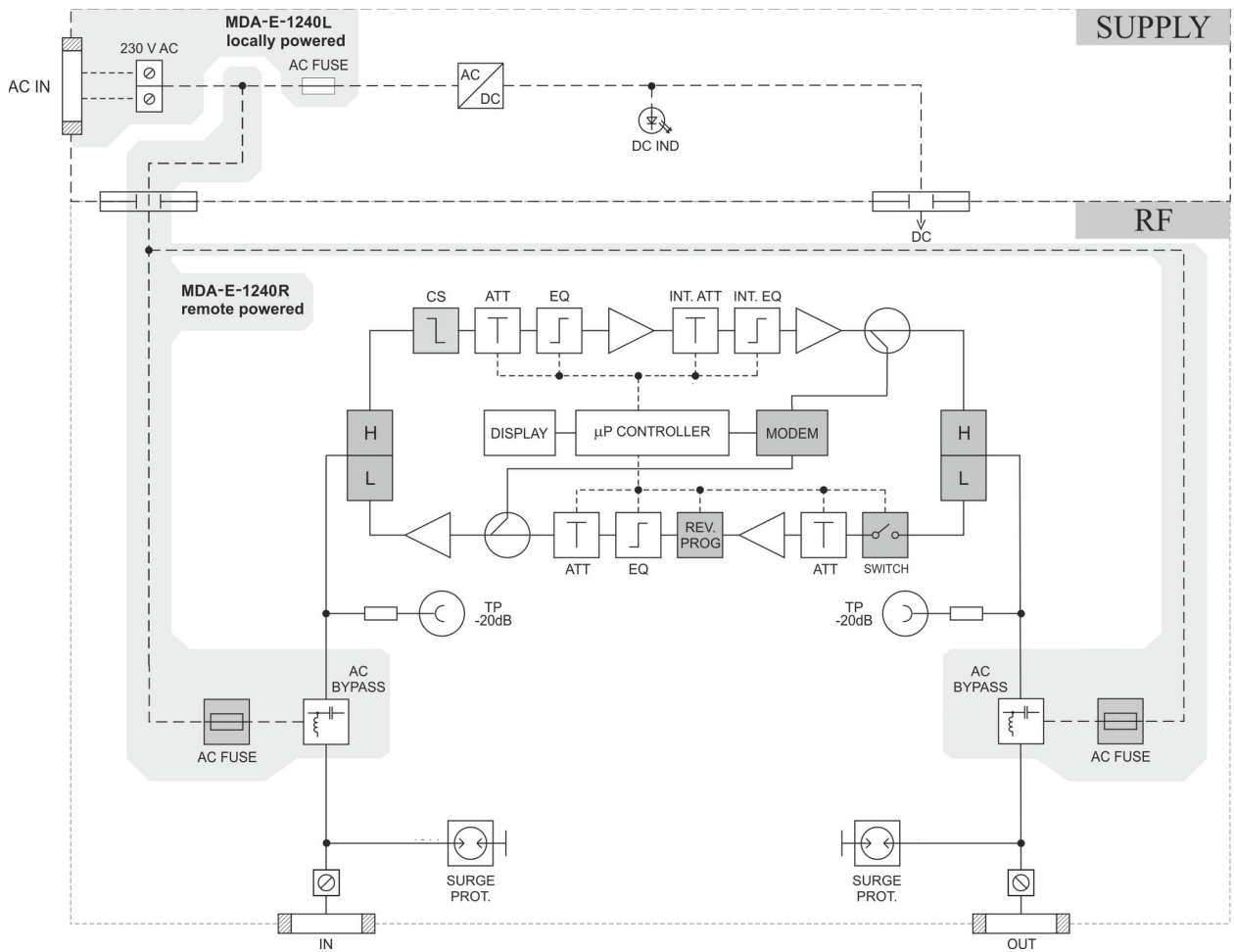
(6) Measured with flat full spectrum load between 85 and 1218 MHz, NPR max at TCP = 63 dBmV

(7) Measured with flat full spectrum load between 5 and 204 MHz, NPR max at TCP = 53 dBmV

(8) 12 W is for the MDA1240L-Exx type, 16 W is for the MDA1240L-Lxx-H type.

(9) 13 W is for the MDA1240R-Exx type, 17 W is for the MDA1240R-Exx-H type.

BLOCK DIAGRAM



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ORDERING INFORMATION

M	D	A	-	E	-	1	2	4	0	X	X	-	X	X	X
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Output stage	
C	GaAs output stage
CH	High level GaAs output stage

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Type of the duplex filter	
65	Pluggable 65/85MHz duplex filter
85	Pluggable 85/105MHz duplex filter
204	Pluggable 204/258MHz duplex filter

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Power supply type	
L	Local powering
R	Remote powering

Option	Required modules	Ordering codes
Monitoring option	1pc NMT-EL-S transponder, 1pc RSW3 module	NMT-EL-S, RSW3

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