



PRODUCT FAMILY	DESCRIPTION
OUTDOOR PASSIVES	REPEATER AMPLIFIER WITH AN EQUALIZER
	FEATURES
	<ul style="list-style-type: none"> <li>&gt;&gt; Plug-in duplex filters</li> <li>&gt;&gt; Fixed slope equalization</li> <li>&gt;&gt; High performance GaAs Push Pull amplifier</li> <li>&gt;&gt; Efficient surge and ESD protection</li> <li>&gt;&gt; Downstream is D3.1 (1.2 GHz) compatible and the device can be upgraded to support D3.1 (204MHz) upstream</li> <li>&gt;&gt; Supports high feed through current</li> <li>&gt;&gt; JDA9xx series plug-in attenuator slot in Return Path</li> <li>&gt;&gt; Connectors on both sides and on top</li> <li>&gt;&gt; No adjustments needed</li> </ul>

#### DOWNSTREAM SIGNAL PATH (values with duplex filter)

Frequency range	85 / 105 / 258 – 1218 MHz
Return loss	18 dB <sup>(1)</sup>
Gain	12.75 dB +/- 0.75 dB <sup>(2)</sup>
Fixed input equalization	10 dB <sup>(3)</sup>
Flatness	+/- 0.75 dB
Test point	- 20 dB <sup>(4)</sup>
Noise figure @85 MHz @1218 MHz	< 18 dB < 7 dB
Umax (112 QAM channels)	99.0 dBuV <sup>(5)</sup>
CTB 41 channels	105.0 dBμV <sup>(6)</sup>
CSO 41 channels	105.0 dBμV <sup>(6)</sup>
XMOD 41 channels	101.0 dBμV <sup>(6)</sup>
CTB mixed raster	> 85 dB <sup>(7)</sup>
CSO mixed raster	> 85 dB <sup>(7)</sup>
Input level @85 MHz @1218 MHz	75 - 93 dBuV 68 - 85 dBuV

## UPSTREAM SIGNAL PATH (values with diplex filter)

Frequency range	5 - 65/85/204 MHz
Return loss	18 dB <sup>(1)</sup>
Insertion loss	3 dB <sup>(8)</sup>

## GENERAL SPECIFICATIONS

Power consumption	3.3 W
Supply voltage	27 - 65 Vac
Maximum-feed through current	7.0 A / port
Hum modulation	70 dB <sup>(9)</sup>
Resistance for remote current	30 mΩ / port
Connectors	Input/Output Test point 5/8" F female
Dimensions	h x w x d 16 x 14 x 8 cm
Weight	1 kg
Operating temperature	-40 ... +60 °C
Class of enclosure	IP65
EMC	EN50083-2
ESD	4 kV <sup>(10)</sup>
Surge protection	6 kV (EN60728-3)

**Notes**

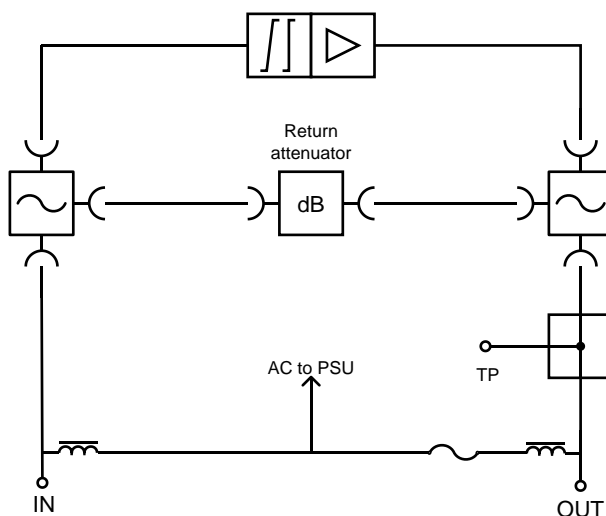
- (1) The limiting curve is defined at 85 MHz -1.5 dB / octave.
- (2) The nominal operational gain at 1218 MHz. It is defined with 2 pcs of diplex filters.
- (3) 85...1218 MHz.
- (4) This bidirectional TP located at output is **primarily** intended for monitoring RE100 downstream path but can be used as a 20 dB injection point for return path.
- (5) Typical value according to IEC60728-3-1 **with** sloped output. BER measurement has been done on the worst channel between 110...862 MHz.
- (6) EN50083-3 **with** sloped output. All results are typical values in room temperature. XMOD is measured at the lowest channel. Guaranteed values are 2 dB lower.
- (7) Channel raster has 23 PAL + 91 QAM (-6 dB) channels. Sloped output. Equivalent level is 95 dBuV at 1218 MHz. Guaranteed values are 2 dB lower (in distortion).
- (8) At 65 MHz. In the case of 204 MHz US loss is -4 dB.
- (9) At any frequency from 10 to 862 MHz when the remote current is less than 7 A. 65dB at any frequency from 862 to 1218 MHz. Value is for one port.
- (10) EN61000-4-2, contact discharge to enclosure and RF-ports.

**RE100 is a high performance GaAs Push Pull repeater amplifier. It is used on distribution lines when the networks are upgraded to higher frequency band. It compensates increased cable loss.**

**RE100 can also act as a line equalizer.**

**The operational window of the amplifiers input level is wide and no level adjustments are needed**

## BLOCK DIAGRAM



## MOUNTING POSSIBILITIES

### 3 ways of mounting:

- Fixed mounting blocks on the sides
- Mounting brackets can be used
- Wire mounting



## ORDERING INFORMATION

<b>RE100</b>	Repeater amplifier, 5-1218 MHz, 10dB slope with 2 x <b>CXF065</b> Diplex filters (slip-band 65/85 MHz)
<b>RE100-MXF065</b>	Repeater amplifier, 5-1218 MHz, 10dB slope with 2 x <b>MXF065</b> Diplex filters (slip-band 65/85 MHz)

### Plug-ins

1. **Diplexers:** MXF065, MXF204  
CXF065, CXF204: Teleste standard plug-in
2. **Attenuators:** JDA901-920 (1dB-20dB, step 1dB)