LAST MILE & CONNECTED HOME

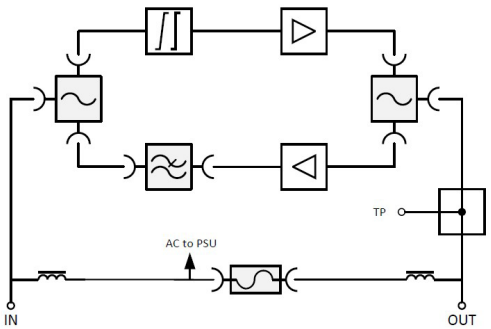
Repeaters

3RE100-13S-AR

The 3RE100-13S-AR is a 5-1218 MHz amplifier with a 13 dB downstream slope, between 85 and 1218 MHz and an active upstream path suited to the new Docsis 3.1 distribution lines. Once installed on the field, the band split can be easily changed by the use of diplexers plugins optimized to provide small insertion losses in the edges of filters. Downstream path is using GaAs FET technology, which guarantees the highest CTB and CSO performance with optimal power need.

3RE100-13S-AR features

- Plug-in diplex filters
- Fixed downstream slope equalization
- High performance GaAs Push Pull in downstream
- High performance Push Pull amplifier in upstream
- Efficient surge and ESD protection
- Connectors on both sides and on top
- Testpoint on lid
- No adjustements needed



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REPEATERS / 3RE100-13S-AR

TECHNICAL SPECIFICATIONS

Downstream signal path [1]		Upstream signal path [1]	
Frequency range	85/105/258...1218 MHz	Frequency range	5...65/85/204 MHz
Return loss	18 dB [2]	Return loss	18 dB [9]
Gain	14 dB [3]		
Fixed input equalization	13/10 dB [4]	Gain	4 dB [10]
Flatness	+/- 0.75 dB [5]	Flatness	+/- 0.5 dB [12]
Noise figure at 85 MHz at 258 MHz at 1218 MHz	 ≤ 19.5 dB [6] ≤ 17.5 dB [6] ≤ 7 dB	Noise figure	≤ 6 dB [13]
Testpoint	20 dB [7]	Corrector	Plugin [11]
CTB (41 channels)	105 dBµV [8]	Output level acc. to DINH450004B	114 dBµV [14]
CSO (41 channels)	105 dBµV [8]		

GENERAL SPECIFICATIONS

Supply voltage	30...65 VAC	**Dimensions**	160 x 140 x 80 mm
Maximum feed through current	8.0 A / port	**Operating temperature**	-15...+55 °C
Power consumption	≤ 5 W at 65 VAC	**Class of enclosure**	IP67
Hum modulation	70 dB [15]	**Connectors** **Input/Output** **Testpoint**	5/8" thread and screwing block on RF board F female

NOTES

(1) Specifications based on MXF204/MXC204.
(2) The limiting curve is defined at 40 MHz -1.5 dB/octave, min. 12 dB.
(3) This is the nominal gain at 1218 MHz. Minimum value 13.5 dB. It is defined with 2 pcs of diplexer filters.
(4) Cable equivalent slope measured respectively between 85 and 1218 MHz and, between 258 and 1218 MHz, with a Eupen 7118 cable.
(5) Guaranteed value over the full temperature range. Flatness is defined starting at 109 MHz with 2 pcs of 65/85 MHz MXF065 diplexer plugins, MXC065 and Eupen 7118 cable with 13 dB slope between 85 and 1218 MHz. Flatness is defined starting at 271 Mhz with 2 pcs of 204/258 MHz MXF204 diplexer plugins, MXC204 and Eupen 7118 cable with 10 dB slope between 258 and 1218 MHz.
(6) Guaranteed value. Noise Figure is defined with 2 pcs of 65/85 MHz MXF065 diplexer plugins.
(7) This bidirectional TP located at output is primary intended for monitoring downstream path but can be used as a 20 dB injection point for return path.
(8) Max. level indicated is measured at 862 MHz with 2 pcs of 65/85 MHz MXF065 diplexer plugins. All results are typical values in room temperature. Guaranteed values are 2 dB lower.
(9) Valid over the band 8-85 MHz. Minimum 12 dB over the band 5...8 MHz, 16.5 dB over the band 85...190 MHz and 15 dB over 190...204 MHz (typically 18 dB over 8-204MHz).
(10) This is the guaranteed minimum gain at 65/85/204 MHz measured with 2 pcs of MXFxxx diplexer plugins.
(11) This extra plugin must be paired with MXFxxx in use. It contains a 65/204 MHz roll-off corrector for best flatness and a 65/204 MHz lowpass filter to improve the upstream intermodulation falling into downstream when used with high level docsis3.1 upstream signals.
(12) Guaranteed valure over the full temperature range. Flatness is defined starting at 8 MHz with 2 pcs of 204/258 MHz MXF204 diplexer plugins and MXC204 corrector.
(13) Guaranteed value over the band 10-204 MHz.
(14) Typical value at room temperature.
(15) At any frequency from 15 to 1218 MHz when the remote current is less than 8 A. Value is for one port.

MOUNTING POSSIBILITIES

1) Fixed mouting blocks on the sides

2) Mouting brackets can be used

3) Wire mounting

ORDERING INFORMATION

3RE100-13S-AR204	Repeater amplifier, 5-1218 MHz, 13dB slope with 2 x MXF204 diplex filters (splitband 204/258 MHz) and MXC204
Plugins	1) Diplexers: MXF204 MXF065, MXF085, optimized for repeater amplifier 2) Flatness corrector: MXC204, MXC065
Adapters	5/8"-3.5/12

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3RE100-13S-AR_20221213_v08