

HARGON 3610

Trunk / distribution amplifier, 1 active output, 1.2 GHz / 200 MHz

RF PARAMETERS

Forward Channel

Bandwidth	85...258 - 1218 MHz
Gain @1.2 GHz TRUNK / DISTRIBUTION	35 / 44 ±0.5 dB
Noise figure ¹	< 7.5 dB
Flatness TRUNK / DISTRIBUTION	±0.75 dB
Output level: ²	
CTB ≤ -60 dBc	118 dBμV
CSO ≤ -60 dBc	120 dBμV
U _{max} ³	112 dBμV
Input testpoint (directional)	-20 ±1.0 dB
Output testpoints (directional)	-20 ±0.75 dB

Reverse Channel

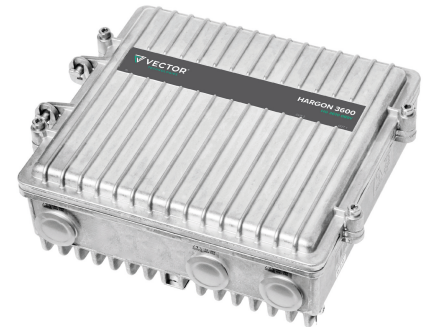
Bandwidth	5 - 65...204 MHz
Gain @204 MHz	28 ±0.75 dB
Noise figure ⁴	< 5.5 dB
Flatness	±0.5 dB
NPR / Dynamic range ⁵	51 dB / 22 dB

OTHERS

Voltage range: remote powering	30 - 65 V AC
Max. current for RF / AC IN ports	10 / 16 A
HUM modulation ⁶	≤ -62 for 7 A
Return loss ⁷	> 18 dB
Power consumption ⁸	20 W
Operation temperature range	-40 - 60 °C
RF Connectors	3 x PG11
Protection class	IP 67
ESD protection	4 kV
Surge protection	6 kV
Dimensions (W x L x H)	261 x 225 x 88 mm
Weight	2.4 kg

AVAILABLE VERSIONS

HARGON 3610 079Y	remote powering
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1.2 GHz technology
An extended bandwidth in downstream up to 1.2 GHz; DOCSIS 3.1 standard compliant



200 MHz technology
A possibility of extending bandwidth in upstream up to 200 MHz



GaN Technology
The Output parameters for analog and digital carriers improved for lower power consumption



Electronic control
A quick and uninterrupted device configuration



VMC (VECTOR Mobile Commander)
Convenient and user-friendly configuration through mobile devices

OPTIONAL:



Spectrum Analyzer
Offers visibility over the whole frequency bandwidth



Auto Alignment
Self configuration based on optimal amplifier settings



NMS transponder
Reduced operating costs thanks to the remote monitoring and configuration



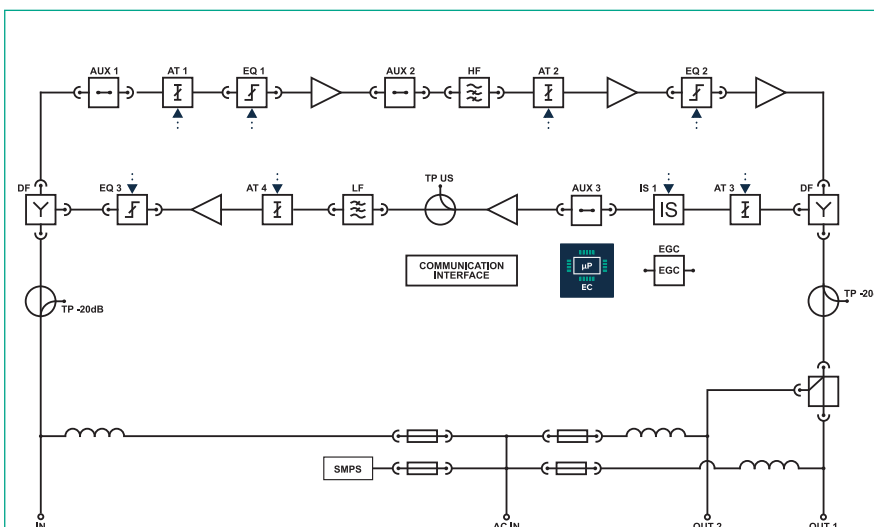
VIG (VECTOR Ingress Guard)
System compliant; Verification and elimination of the source of ingress in the network



ALSC (Automatic Level and Slope Control)
Flat and stable Output characteristics due to the compensation of temperature changes in the cables.



Bypass
Flexible implementation in different network architectures



Downstream Configuration:

Input/Interstage gain control (AT1, AT2): 0 - 20, step 0.5 dB
Input/Interstage slope control (EQ1, EQ2, EQ3): 0- 18, step 0.5 dB

Upstream Configuration:

Output/Interstage gain control (AT3, AT4): 0 - 20, step 0.5 dB
Output slope control (EQ5): 0- 18, step 0.5 dB
Ingress switches (IS1): 0, -6, -40 dB

- 7.5 dB - 750 MHz; 8.0 dB - from 750 MHz to 950 MHz; 9.0 dB - from 950 MHz to 1218 MHz
- According to EN50083-3, 9 dB interstage slope between 85 - 862 MHz, 42 channels CENELEC
- 110 ch 256 QAM, pre-FEC BER 10⁻⁹, 9 dB slope between 258 and 1218 MHz
- @204 MHz + 1 dB
- NPR @ -9 dBμV / Hz, measured 5 - 204 MHz with 180 MHz loading, 5 dB interstage attenuator
- For f > 15 MHz < f < 1 GHz
- 18 dB for f ≤ 40 MHz, 18 dB -1.5 dB / oct for f > 40 MHz, but not worse than 12 dB
- For 65 V AC

Unless otherwise specified, the whole specifications are tested with 65 / 85 duplex filters installed, at room temperature 25°C and present typical values.