GOING FUTURE TODAY.

IP to QAM converter

innovative and reliable

upt to 64 QAM output channels

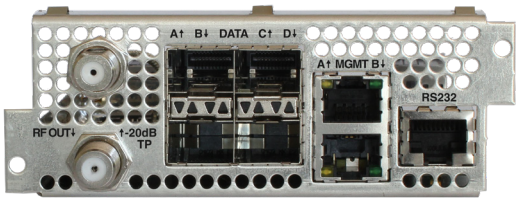
159-X

Made in Germany

Direct Digital by ASTRO

- plug-in module for U 100 base unit
- for processing of up to 64 IP multicast groups of a Gigabit Ethernet MPEG TS in 64 standard QAM channels
- all QAM channels can be configured independently from each other
- Multiplexing - Generation of QAM channels out of different input signals
- outstanding signal parameters by Direct Digital technology
- NIT and LCN processing integrated
- EIT and SDT Processing
- user friendly configuration via web browser
- monitored fan

Backplane:



Type		U 159-X
Order Number		380 305
EAN-Code		4026187270711
Network interfaces (passive routing to U 1xx)		
Management		2 x 1000 Base-T Ethernet (RJ 45)
Data		4 x SFP (1000 Base-X or SGMII)
Input Bitrate per Data Port	[Mbit/s]	1000/1000/900/750 @1/2/3/4 Ports
Protocol		Ethernet, ARP, IPv4, IPv6, VLAN, UDP, RTP, TCP, HTTP(S), SNTP, SNMP v2c/v3, Syslog, IGMP v2/v3, MLD v1/v2
Serial		1x RJ 45, 115200 kbit/s, 8N1
Transport Stream Processing		
TS Decapsulation		UDP, UDP/RTP, 1-7 packets, FEC (SMPTE 2022-1, -2)
Packet Length	[Bytes]	188
Data rate adjustment		☑
PCR-Correction (< 500 ns acc. DVB)		☑
NIT Handling		static, NIT from PID, dynamic
QAM-Modulator		
Modulation		16-, 32-, 64-, 128-, 256-QAM
Signal processing		DVB EN 300 429, ITU J.83 Annex A/C
Spectrum shape cos-roll-off	[%]	12, 13, 15, 18
FEC		Reed-Solomon (204, 188) Code
Symbol rate	[Msymb/s]	1 - 7,14
Channel Bandwidth	[MHz]	1,12 - 8 (depends on symbol rate)
Maximum number of channels		64
Maximum bitrate per output channel	[Mbit/s]	52,64
Phase error dynamic	[°]	0,3
MER (Equalizer)	[dB]	≥ 44
Shoulder attenuation	[dB]	> 56
RF-Modulator		
Connectors	[Ω]	75, 2 x F-jack (1 x RF, 1 x Test point -20 dB)
Frequency range	[MHz]	47 - 1006, digital modulation
Frequency drift	[kHz]	< 10
Output level	[dBµV]	114/111/108 @16/32/64 Channels
Intermodulation distance	[dB]	> 60
Return loss	[dB]	> 14
Spurious frequency distance	[dB]	> 60
Intercarrier Signal-to-Noise ratio	[dB]	> 60
Common data		
Current consumption at 48 VDC	[mA]	830
Power consumption	[W]	50
Input voltage	[V]	36 - 60 VDC or 230 VAC
Dimensions		1 RU, 19 inch
Ambient temperature	[°C]	0...+45

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