

Channelot 105



DVB-T/H Micro-Repeater Station

- **Low-cost, fully integrated on-channel or transposing repeater site solution**
- **All-in-one solution includes digital repeater and HPA**
- **On-channel digital echo canceller**
- **Comprehensive remote management**
- **Compact and low-power 2U 19"-rack kit**



Now with adaptive HPA pre-correction

The Channelot 105 DVB-T/H Micro-Repeater Station is an integrated implementation of a full-featured DVB-T/H low-power on-channel or transposing repeater site. Channelot 105 includes in a compact 2U-height shelf all the functions required at the point of deployment of the low power repeaters that are becoming a key element to the large-scale deployment of digital TV and mobile TV networks.

Function

The Channelot 105 DVB-T/H Micro-Repeater Station integrates all the functions needed at the low-power DVB-T/H repeater site:

- State of the art, on-channel or transposing digital repeater
- Low repeating delay for effective on-channel SFN operation
- Best-in-class digital echo canceller for input-output isolation enhancement
- Integrated 5W, 10W, 25W, 50W or 100W High Power Amplifier (HPA) with adaptive pre-correction
- Robust performance for plug-and-play application in challenging on-channel wide-area scenarios
- Carrier-grade remote management and control

Features and Benefits

- State-of-the-art digital repeater supports on-channel (same frequency) or transposing (frequency translation) operation
- Low processing delay enables effective SFN operation
- Best-in-class digital echo canceller largely eliminates input-output isolation limitations
- Input Automatic Gain Control (AGC) and output power-level setting
- A built-in high-performance and high-efficiency HPA provides 5W, 10W, 25W, 50W or 100W of output power across the entire UHF band. Adaptive pre-correction ensures superior efficiency and signal repeating integrity
- A full suite of carrier-grade management and maintenance functions includes remote visibility of unit status; remote configuration; comprehensive event reporting and logging; software upgradeability in the field – all through either a web or an SNMP interface.
- Using an optional all-passive interconnection box, two Channelot 105 stations can be operated in a 1:1 hot-redundant configuration without requiring a separate controller.
- With a footprint of 2 RU of 19" rack space, Channelot 105 represents the ultimate in efficiency and space saving.



Specifications

RF Input

Frequency	470 - 862 MHz
Frequency step	1 Hz
Channel bandwidth	6, 8 MHz
Level	-72 – -10 dBm -55 dBm nominal
Squelch	-72 – -10 dBm
Return loss	16 dB
Noise figure	8 dB

RF Output

Frequency range	470 – 862 MHz
Frequency step	1 Hz
Channel bandwidth	6, 8 MHz
Pre-correction	Linear Adaptive non-linear
Mask	-36 dB @ 4.2 MHz offset
Output power	5W, 10W, 25W, 50W, 100W

Echo Cancellation

Maximum echo level	12 dB (echo power above signal power)
Echo attenuation	40 dB
MER loss	2 dB
Cancellation window	7 μ S, 14 μ S
Processing delay	7 μ S

Auxiliary Interfaces

Redundancy interface	Interconnecting two Channelot 105 stations for autonomous 1:1 hot redundancy
Summary alarm	Dry contacts

Management

Interface	100Base-T Ethernet or WAN
Protocol Configuration	Web (HTTP) and SNMP Manageable remotely; non-volatile memory- resident with back-up copy
Status	Readable remotely
Event notification	Web display and SNMP Traps
Software update	Remotely upgradeable in the field, with a built-in back-up copy

Power

Supply rail	100 – 240V AC -48V DC
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Size

Form factor	19" rack mounting
Height	2U

CHANNELOT

24 Raoul Wallenberg St., Tel Aviv 69719, Israel
Tel. +972-3-769-8508 Fax +972-3-769-8510
info@channelot.com, www.channelot.com

 RAD Group