becker ®

MINING SYSTEMS

www.varismine.com

SMART COM 150
LEAKY FEEDER

SALES/SERVICE:
+1-705-674-8111

HEAD END AMPLIFIER

DOWNSTREAM HIGH

DOWNSTREAM OK

DOWNSTREAM LOW

becker
VARIS SMART UNDERGROUND COMMUNICATIONS
A division of Becker Mining Systems

HEAD END
PART NUMBER:
RNG-H
0000.0281
SERIAL NUMBER: MFG DATE:

RNG-H
8-CHANNEL
VHF HEAD END

- Interface Between smartcom ® 150/150IS Leaky Feeder Network and Base Station Equipment
- All-in-one 8 Channel Head End
- Built-in Automatic Gain Control
- Pre-Amplifier Compensates for Splitting Losses
- 12 VDC Output

smartcom®

smartcom®

FEATURES

Becker Mining Systems smartcom® 150 8-channel Head End is the interface between Base Station equipment such as Repeaters and the smartcom® 150/150IS Leaky Feeder network.

Head End units have a pre-amplifier which compensates for the splitting losses in the Head End and performs system Automatic Gain Control (AGC).

The Head End unit also injects 12VDC onto the Leaky Feeder cable to power smartcom® 150 Line amplifiers located near the basestation.

TECHNICAL DATA

PERFORMANCE SPECIFICATIONS	
Impedance	LF Ports: 75 Ω Rx/Tx Ports: 50 Ω
Leaky Cable Types	RNG-500
Input/Output Voltage	12-14 Vdc
Current Consumption	600 mA (nominal)
Output DC Blocking	Jumper select (inside enclosure)
Output Current Limiting	2.5A
Downstream	
Losses/Gains (nominal)	Splitters: <-20 dB; Amp: +10-25 dB; Branch Brd: <-10 dB
IL Range (nominal)	17-2 dB
Bandwidth (3 dB)	15 MHz
3 dB Bandpass	145-160 MHz
3rd Order Intermod free Channel Capacity	16 Voice/Data, 8 Video (2 per branch)
Ethernet Bandpass	6.0 MHz
Ethernet Center Frequency	153 MHz
DOCSIS 2.0 data rate	30.34 Mbps (64 QAM)
Third Order Intercept (3IP)	+31 dBm
Typ Voice Ch Pwr	-10 dBm in at Tx Port
Target Voice Ch Output Power	-10 dBm onto LF cable
Upstream	
Losses/Gains (nominal)	Splitters: <-20 dB; Amp: +10-19 dB; Branch Brd: <-10 dB
IL Range (nominal)	21-6 dB
Bandwidth (3 dB)	15 MHz
3 dB Bandpass	170-185 MHz
Ethernet Bandpass	6.4 MHz
DOCSIS 2.0 data rate	20.48 Mbps (16 QAM)
Third Order Intercept (3IP)	+29 dBm

MECHANICAL DATA	
Enclosure	19" 3U, Steel Enclosure
Dimensions (W x H x D)	483 x 132 x 356 mm (19 x 5.2 x 14 in)
Weight (nominal)	6.35 kg (14 lbs)
LF Ports	N-type
RX/TX Ports	BNC Jack
Power Input	16 AWG Wire

ENVIRONMENTAL DATA	
Temperature Range	0 to +50° C (32 to +122° F)

Technical data are limit values.

If the product is integrated into systems or operated in combination with other devices, its permissible operating values can deviate from these limit values. Subject to technical modifications without prior notice.

Rev. D

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