

350 W KA-BAND OUTDOOR HIGH POWER AMPLIFIER DNT513H/KA

Business Unit : BROADCAST

Distributed by:
AA SYSTEL France
9, rue RAVEL, 91620 NOZAY
TEL: + 33 1 6963 8630
FAX: + 33 1 6963 8474
E-mail : wang.huiqin@a-a.fr
Beijing mobile: +86 138 010 11504

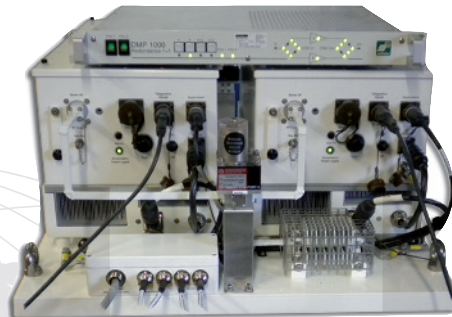
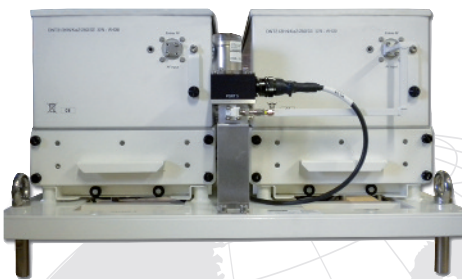


Applications

- Ka band satellite uplink
- Broadband communication
- Commercial and Military terminal

Benefits and key features

- Compact and light weight for easy installation
- Rugged, construction for harsh environment
- High reliability
- Easy first level maintenance
- Prime power interface compatible with a wide variety of voltage and frequencies
- State of the art RF performances
- Weather resistant antenna mount TWTA
- Hand held terminal



COMPACT OUTDOOR HPA FOR SATELLITE COMMUNICATION

The DNT513H/KA is ready for the next generation high throughput satellite communication : broadband services, on the move communication and military operation.

Included TWT which can delivered a RF output power 500 W peak or 350 W CW, DNT513H/KA amplifier is perfect for multicarriers application.

Of simple, compact and very reliable design, this amplifier is perfectly adapted to the requirements of the future : Compliance with european standards ; behavior face to primary energy ; use in fixed or in mobile station.

The DNT513H/KA incorporates an internal monitoring and control system to give the operator a high level of control. Access to these M&C capabilities can be achieved by serial RS485 port, Ethernet IP port or optional hand held device. This antenna mount compact unit allows an easy mounting at the antenna to minimize RF losses. This weather resistant outdoor TWTA with optimized thermal design and rugged construction is qualified for harsh environments.

Many options and configurations for any installation can be proposed : L-band block upconverter, mounting configuration, remote controller, redundant configuration ...

Site Bretagne

ZAC ES Passants II

Rue Amiral Bérenger - BP 90145

35801 Dinard Cedex (FRANCE)

Tel : + 33 (0)2 99 46 24 75

Fax : + 33 (0)2 99 46 47 27

www.actiasodielec.fr

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DNT513H/KA



Réf. : DFIS01GB-DNT513H/KA - 05/04/11

TECHNICAL CHARACTERISTICS

Mechanical Features	
Dimensions (H x L x P)	350 x 350 x 650 mm
Weight	< 30 kg
Cooling	Air forced, internal blower
Electrical Features	
Connections	Input / Output : Waveguide WR28 – UG599-U Main : Amphenol ECTA 133 2 + PE 40 A
Remote Control & Monitoring	RS485 : FCI 851 12/14 pins Ethernet IP : RJF Amphenol
Local management	Hand held terminal (TES) supplied according to configuration ; FCI 851 12/14 pins
Supervision	FCI 851 12/10 pins
RF Features	
Frequency band	KA2 : 27.5 – 30 GHz or KA3 : 30 – 31 GHz (at output flange)
Power @ Po	24.6 dBW (TOP 500 W peak – 350 W CW)
Gain	@ Po : ≥ 70 dB ; @ Po - 10 dB : ≤ 90 dB
Gain variation	≤ 2.5 dB at 10 W within any 1000 MHz
Gain slope @ Po – 10 dB	0.04 dB / MHz
Stability in time	≤ ± 0.25 dB / 24 h (at 25°C ; temperature and input power constant after 60 mn of stability)
VSWR	≤ 1.3
Noise in Tx	- 73 dBW / 4 kHz
Noise in Rx (Rx = 18.3 – 21.2 GHz)	- 130 dBW / 4 kHz
Spurious	< - 40 dBc (AC mains related – f < 370 Hz)
Sum of modulation spurs (f > 370 Hz)	< - 47 dBc
Linéarity	- 30 dBc @ Po - 9 dB with 2 identical carriers separated by 20 MHz
Energy	
Voltage	Single phase, neutral grounded, TN-S arrangement / 85 → 264 VAC / 47 → 63 Hz
Consumption	1500 W
Power factor	0.95 typ.
Environmental Features	
Temperature	Storage : - 40°C → + 70°C ; Operation : - 40°C → + 55°C (Including solar radiation loading)
Altitude	3000 m
Relative humidity	8 → 100 %
Directives & Standards	
EMC	ETSI EN301489-12
Safety – DBT	EN60215

QUALITY REFERENCES



BLOCK DIAGRAM

