



## Application

- DVB-T/-H/-T2 & ISDB-T deployment
- Coverage enhancement
- Isolated villages in mountainous regions

## Key Features

- Up to 6 Channels 1W
- Echo canceller -15 dBc
- HTTP, SNMP server
- Outdoor IP43, mast or wall mounting
- Filters and Combiner included

## Benefits

- No shelter needed
- Fast and easy deployment

## Contact us

- [protel@protel.it](mailto:protel@protel.it)
- [www.protel.it](http://www.protel.it)

# Solution for Digital TV coverage

## Multi DVB-T/-H/-T2 & ISDB-T Gapfiller Nx1W



**DVB-T**® **DVB-H**® **DVB-T2**® **ISDB-T**

### For a coverage up to 100 km<sup>2</sup>

A whole integrated solution : an unique receiving antenna access, 2 complete gapfiller modules with 1 W amplifiers, channel filters, a combiner, an unique transmitting antenna access and a monitoring module with HTTP and SNMP server, in a single outdoor case.

A low installation cost: easy engineering rules thanks to the high sensitivity of the system allowing to re-broadcast a low level signal (up to -72dBm) and the high efficient echo-canceller system allowing an easy antennas installation.

A low ownership cost: any shelter is needed, only 4 m<sup>2</sup> floor with concrete slabs in case of mast-mounting, only a 4 m<sup>2</sup> wall in case of wall-mounting.

A connected solution: embedded WEB & SNMP server, friendly GUI, remote control through IP network or optional embedded GPRS modem. Network Management System is available.

A complete offer: turnkey sites kits, electrical cases, masts, cabin protection, etc... are available optional.



169 – Mutlichannel DVB-T/-H/-T2 & ISDB-T Gapfiller 1W – ed6 – 10/2011

Quality Model FP1004D / ed 27 / 07 / 2011

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## Multi DVB-T/-H/-T2 & ISDB-T Gapfiller Nx1W

RF Features		
Standards	DVB-T, DVB-H, DVB-T2, ISDB-T	
Input / Output Frequency	470-862 MHz	
Bandwidth	8, 7 or 6 MHz	
Offset	-3, -2, -1, +1, +2, +3 x 1/6 MHz	
Return loss	-17 dB (1.33 : 1)	
Input level	-72 to -32 dBm	
Output level / channel	1 to 3 channels : 1 W	4 to 6 channels : 0.5 W
Out of band emission	Compliant with : ETSI EN 302 296 V1.1.1	
Shoulders	≥ 37dB (≥ 39dB typ.)	
MER	≥ 30dB (≥ 32dB typ.)	

Echo-canceller Features	Standard Mode	Enhanced Mode
Gain – Isolation ratio	-5 dBc	-15 dBc
Correction efficiency	30 dB	30 dB
Cancellation width	4 μs	2 μs
Selectivity	50 dB	80 dB
Group delay	< 7.1 μs	< 10.2 μs
Gain regulation	Automatic decrease of the gain to guarantee a good transmission signal if the reception level is too low or deterioration of the antennas isolation	

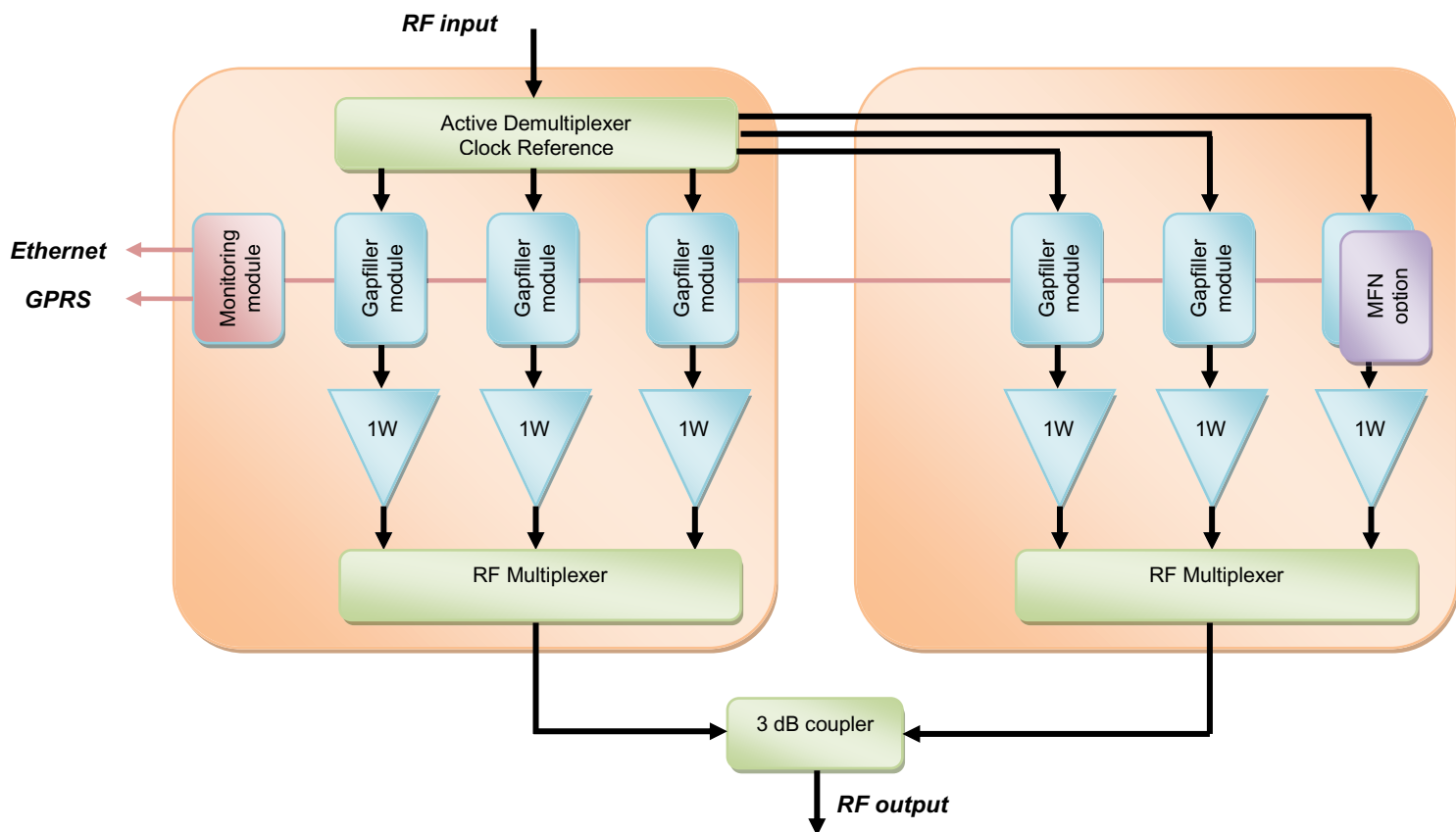


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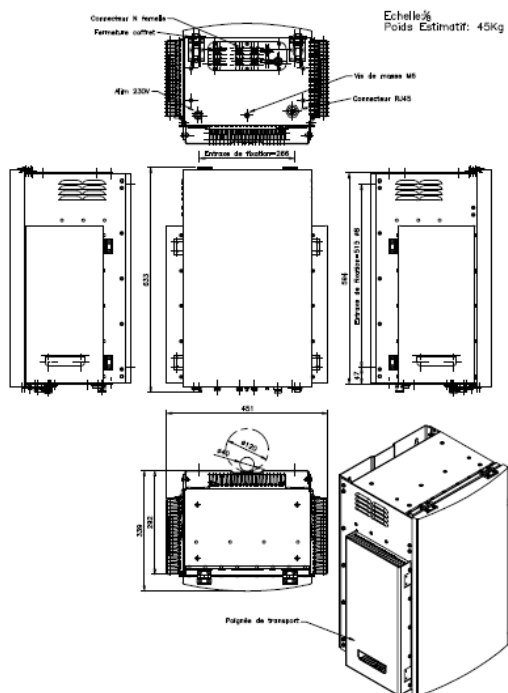
## Multi DVB-T/H/T2 & ISDB-T Gapfiller Nx1W

<b>Cabinet features</b>		
Control and monitoring	WEB, SNMP Remote control by GPRS (optional) SELECOM Network Management Station (optional)	
Maintenance	All the modules are full band and can be easily replaced	
Dimensions	630 mm x 450 mm x 340 mm	
Weight	38 kg	
Fastening	On wall or on mast	
Protection against corrosion	Aluminum treated against the oxidation and painted	
Ingress Protection	IP43	
Cooling	Natural convection	
Power supply range	85-265 VAC	
Power consumption for each way	50 W	
Coaxial standard connectors	N female	
RF Combining	<u>1 to 3 channels :</u> Star-point combining filter	<u>4 to 6 channels :</u> 2 x Star-point combining filters + 3 dB coupler
Temperature	-30°C to +45°C	

### Synoptic



### Mounting Plan



Ordering Code	Designation
SC1-x	x = number of channels : 1, 2, 3, 4, 5 or 6
SUP_SC1-X	Monitoring module with HTTP/SNMP server and GPRS modem
C-ELEC	Protective case includes a power differential protection, circuit breaker, power supply and surge protection.
C-ELEC+	Protective case with electrical isolation transformer, recloser, lightning Phoenix ...
FIXC-ELEC	Fixation kit for electrical box on mast
PCABLC3V	Protection for cables of 1 box 3 channels
TOITC3V	Protection again sunlight and rain

### Other options

#### NMS (Network Management System)



- ✓ NMS software manages a complete network of different SELECOM equipment
- ✓ Screens with complete status and reports
- ✓ Location on a map of each equipment
- ✓ SMS, EMAIL alerts
- ✓ Equipment control in case of needing

#### Solar panels



- ✓ Free Energy
- ✓ Battery for autonomy in case of lack of sunlight
- ✓ Automatic relay to standard power supply
- ✓ Ecological solution

#### Turnkey sites kits



- ✓ Donor & Emission antennas
- ✓ Feeders
- ✓ Grounding kits
- ✓ Wood and metallic masts
- ✓ Lightning protection
- ✓ Electro-technical kits