



Application

- DVB-T/-H/-T2 & ISDB-T deployment
- Coverage enhancement

Key Features

- Up to 6 channels
- Gapfiller with enhanced echo-canceller -15dBc
- Automatic digital precorrection
- Outdoor cabinet with small footprint
- HTTP, SNMP server

Benefits

- Cost effective solution
- Alternative to transmitters
- Quick and easy installation

Contact us

- protel@protel.it
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Solution for Digital TV coverage

DVB-T/-H/-T2 & ISDB-T Gapfiller Station 1W-10W



DVB-T **DVBH** **DVB-T2** **ISDB-T**

Outdoor Low Power Gapfiller Station

The “Low Power multichannel DVB-T/-H/-T2 & ISDB-T Station” of SELECOM consists of a whole integrated solution: RF antenna, time-frequency reference and power distribution, gapfiller modules, a combiner system tuned for adjacent and non-adjacent channels, a single control unit, in an outdoor cabinet IP65.

The gapfiller module permits easy engineering rules thanks to the high receiving sensitivity (up to -72dBm) and the high efficient echo-canceller that allows some echoes up to 15 dB upper the main signal.

The non-linear digital pre-correction circuits provides precise compensation of the output filter and power amplifier.

Remote control is ensured with a HTTP/SNMP server through IP network or optional embedded GPRS modem. An optional Network Management System (NMS) is available.

SELECOM proposes complete turnkey sites with antennas, feeders, masts, etc...



186 – Multichannel DVB-T/-H/-T2 & ISDB-T Gapfiller Station 1W-10W – ed5 – 10/2011

Quality Model FP1004D / ed 27 / 07 / 2011

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Solution for Digital TV coverage

DVB-T/-H/-T2 & ISDB-T Gapfiller Station 1W-10W

| RF Features | 1W | 5W | 10W |
|---------------------------------|---|--------|---------|
| 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 Wrms | 5 Wrms | 10 Wrms |
| Out of band emission | Compliant with : ETSI EN 302 296 V1.1.1 | | |
| Shoulders | ≥ 37dB (≥ 39dB typ.) | | |
| MER | ≥ 30dB (≥ 32dB typ.) | | |
| <i>Gapfiller without echoes</i> | ≥ 25 dB | | |
| <i>Gapfiller with echoes</i> | | | |





| 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 | |



Solution for Digital TV coverage

DVB-T/-H/-T2 & ISDB-T Gapfiller Station 1W-10W

| Mechanical Features | |
|--------------------------------|--|
| Control and monitoring | WEB, SNMP |
| Maintenance | All the modules are full band and can be easily replaced |
| Dimensions | 1500mm x 600mm x 600mm |
| Weight | 220 kg (full equipped with 6 channels) |
| Fastening | On wall or on mast |
| Protection against corrosion | Aluminum treated against the oxidation and painted |
| Ingress Protection | IP65 |
| Cooling | Fan (hot swappable) |
| Power supply range | 85-265 VAC / 50-60 Hz |
| Power consumption for each way | 100 W |
| Temperature | -30°C to +45°C |
| Coaxial standard connectors | N female |
| RF Combining | Non adjacent channels : star-point combining filter Adjacent channels : manifold combining filter |

| Options | |
|--|--|
| <p>GPRS Modem</p>  | <ul style="list-style-type: none"> ✓ For the remote control via GPRS network |
| <p>NMS (Network Management System)</p>  | <ul style="list-style-type: none"> ✓ 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 |
| <p>Solar panels</p>  | <ul style="list-style-type: none"> ✓ Free Energy ✓ Battery for autonomy in case of lack of sunlight ✓ Automatic relay to standard power supply ✓ Ecological solution |
| <p>Turnkey sites kits</p>  | <ul style="list-style-type: none"> ✓ Donor & Emission antennas ✓ Feeders ✓ Grounding kits ✓ Wood and metallic masts ✓ Lightning protection ✓ Electro-technical kits |