

DTV License-Free

Key Features

- Aggregate Rate Over 300 Mbps
- Highest System Gain
- Scalable and Spectrally Efficient
- ISM 5.8 GHz Unlicensed Band
- Adaptive Power Control

Benefits

- No license required
- Easily deployed and activated
- Full-duplex
- ATSC/DVB-ASI/Ethernet Ports

Applications

- Connect Studios, etc.
- Backhaul/Extend IP Networks, SANs

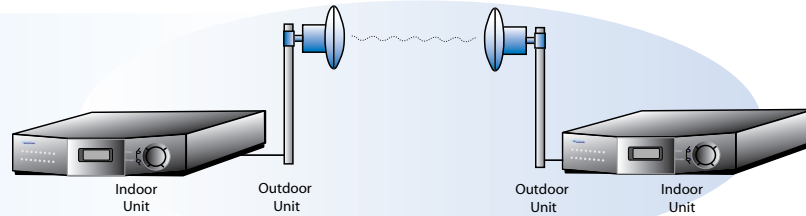


DTV LICENSE-FREE OVERVIEW

DTV License-Free consists of an Indoor Unit (IDU) and Outdoor Unit (ODU). The DTV License-Free radios are spectrum and data rate scalable enabling service providers or organizations to trade-off system gain with spectral efficiency and channel availability for optimal network connectivity. DTV License-Free delivers aggregate rates up to 310 Mbps within the 5.7 - 5.8 GHz ISM band for distances of up to 20 miles. A common platform supports plug-in 100 Mbps Ethernet or OC-3 interfaces and Digital Video.

The DTV License-Free has a built-in next generation digital video/audio/data multiplexer that allows users to convert, integrate, groom and multiplex multiple video/audio/data streams effortlessly. The multiplexer supports industry standard video, audio and data interfaces and delivers both DVB-ASI / SPI digital, video and E3/DS3 data trunks. Careful clock management allows for full plesiosynchronous operation. Built-in transport stream multiplexing and SMPTE 310 to DVB-ASI conversion facilitates interconnection flexibility.

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| PRODUCT NAME | MODEL NUMBER | THROUGHPUT | DATA INTERFACE | WAYSIDE |
|--------------------|--------------|--|--------------------------------|------------|
| AB-Full Access 50 | 5800 AEV | 100 Mbps Aggregate (50 Mbps full-duplex) | 100 Base TX / or Digital Video | Two T1/E1s |
| AB-Full Access 100 | 5800 AEC | 200 Mbps Aggregate (100 Mbps full-duplex) | 100 Base TX / or Digital Video | Two T1/E1s |
| AB-Full Access 155 | 5800 ASN | 310 Mbps Aggregate (155 Mbps full-duplex) | OC-3 / or Digital Video | One T1 |

SPECIFICATION SUMMARY

| | |
|----------------------|---|
| Frequency Range | 5,725 - 5,850 MHz |
| Capacity Options | Spectrum scalable from 25 Mbps to 100 Mbps full duplex + 2 T1/E1 Wayside Channels 155.52 Mbps full duplex + 1 T1 Wayside Channel |
| - Ethernet | |
| - SONET/OC-3 | |
| Modulation | QPSK, 16-QAM, 32-QAM, 64-QAM |
| FEC | Trellis Coded Modulation concatenated with Reed-Solomon Coding |
| Average Output Power | +13 to 23 dBm RMS |
| Max EIRP | +46 dBm RMS (with integrated antenna) |
| Receive Sensitivity | -72 dBm (or higher, depending on data rate/modulation/FEC) |
| Antenna Gain | 23 dBi (integrated antenna) |
| Regulatory | FCC Part 15 IC: RSS210 |
| Antenna Connector | N-Type Female for optional external antenna |
| Distance | 20 miles (or greater, depending on antenna) |
| Power | -48 volts \pm 10%, <70 watts; Optional 100-240 Volts AC, 47-63 Hz power supply |

CUSTOMER DATA INTERFACE

| | |
|--------------|-----------------------|
| Physical | |
| - Ethernet | 100BaseTX |
| - SONET/OC-3 | Full duplex OC-3 |
| Connector | |
| - Ethernet | RJ-45 |
| - SONET/OC-3 | Type fiber SC |
| Compliance | |
| - Ethernet | 802.3, 802.3u, 802.3d |
| - SONET/OC-3 | GR-253 for OC-3 |

AUXILIARY CONNECTIONS

| | |
|------------------|--------------------------------|
| Wayside Channels | T1/E1 |
| Interface | DSX-1 |
| Connector | RJ-48C |
| Alarm Port | Two Form C relay alarm outputs |

INTEGRATED MULTIPLEXER

| | |
|---|---|
| Data Rates | 8 Mbps to 155 Mbps |
| Video Channels | Up to Three (all 75 Ω BNC), 1 - SMPTE 310 In or Out, 2 - DVB-ASI In or Out |
| Data Channels | E3/DS3 75 Ω BNC, T1/E1 RJ45 Asynchronous RS232 9 pin D |
| Additional Channels (using 4 Port Mux) | Digital Audio Encoder/Decoder, 10 Mb Ethernet Bridge, 4 w voice, 2 w FXS / FXO, Fractional E1/T1 Channels |

NETWORK MANAGEMENT

| | |
|-----------|--------------------------------------|
| Support | SNMP, Proprietary GUI iConductor™ |
| Connector | 10/100BaseTX |

ENVIRONMENTAL

| | |
|-------------------|--------------------------|
| Temperature | |
| - IDU | 0° to 55°C |
| - ODU | -30° to 55°C |
| Relative Humidity | |
| - IDU | 0 to 95%, non-condensing |
| - ODU | Up to 100% at 45°C |
| Altitude | IDU/ODU both 4500 m |

MECHANICAL

| | |
|--------|--|
| Size | |
| - IDU | 17.2" x 3.52" x 16.7" EIA rack mount (19 inches, 48.2 cm) |
| - ODU | 15.7" x 14.5" x 2.1" |
| Weight | |
| - IDU | 10.6 lbs. |
| - ODU | 15 lbs. |

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Moseley is an ISO 9001 certified company.

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