

# All-Standard All-Band Modulator for USB-3

- ❑ Modulator for all popular DTV standards
- ❑ Fully agile over VHF, UHF and L-band
- ❑ USB cable supplies power, data, control

## FEATURES

- Pocket-size modulator for all popular satellite, cable and terrestrial standards
- Fully agile from 36 to 2150MHz, covering VHF, UHF and L-band
- Modulation bandwidth up to 70MHz
- Excellent signal quality
- Single USB cable to the DTU-315 supplies power, data and control
- Supports all constellations and modulation modes for each supported DTV standard
- Digital channel simulator option including multipath echo and AWGN insertion
- F and BNC cable assemblies included
- Use with DekTec's *StreamXpress* for easy generation of RF test signals
- Free Windows SDK (DTAPI) for writing your own custom application



## APPLICATIONS

- RF test generator in your R&D lab or factory for developing, qualifying or repairing any equipment with a DTV antenna input
- Portable demo set for TV receivers, easy to carry to customer demos, trade shows, etc.
- TV transmission or distribution using modulated signals in shops, hotels, hospitals etc.

## KEY ATTRIBUTES

| Parameter       | Value   |
|-----------------|---|
| RF connector    | 75-Ω micro-BNC female                           |
| Frequency range | 36 to 2150MHz                                   |
| Bandwidth (max) | 70MHz   |
| I/Q sample rate | 0.08 to 70MSPS                                  |
| RF level        | -45 to -25dBm (0.5dB steps)*                    |
| MER (typical)   | >40dB   |
| Phase noise     | <-105dBc @ 10kHz                                |
| Spectral purity | >50dB   |
| USB port        | USB 3.1 Gen 1**<br>Sometimes called USB 3.0     |
| USB connector   | Micro-B female                                  |
| OS              | Windows 7, 8/8.1, 10<br>Linux ≥2.6.18, 3.x, 4.x |

\* For OFDM standards: up to 1GHz; for single-carrier standards up to 2GHz; above 2GHz the output level is max. 5dB lower.

\*\* Must be a real USB-3 port; the DTU-315 will not operate with USB-2.

## MODULATION STANDARDS

| Standards   |
|---|
| ADTB-T, ATSC, ATSC-M/H*, ATSC 3.0*, CMMB*, DAB(+)*, DMB-T/H*, DVB-C (QAM-A), DVB-C2*, DVB-CID, DVB-S(2), DVB-S2X*, DVB-T, DVB-T2 single-PLP, DVB-T2*, I/Q samples*, ISDB-S*, ISDB-S3*, ISDB-T*, QAM-B (J.83 Annex B), QAM-C, T-DMB* |

\* Option

## ORDERING INFORMATION

| Type         | Description   |
|--------------|---|
| DTU-315-SP   | All-standard all-band modulator for USB-3 with <i>StreamXpress</i> player/test-generator software |
| DTU-315-GOLD | DTU-315 with <i>all</i> current and future modulation options                                     |
| DTR-315-RACK | 1U 19"-rack mounting kit for holding up to 8x DTU-315   |

Please refer to [dektec.com](http://dektec.com) for the latest pricing of the DTU-315 and its options, and for a list of distributors and resellers.