# Consultix WTX-610 ILLUMINATOR™
# Multi-Standard Modulated Transmitter to 6 GHz

One Device. All Missions


**Multi-Standard Modulated Transmitter**
- CW
- WCDMA
- LTE

**200 MHz to 6000 MHz**
**CBRS & C-band covered**
**Up to +40 dBm / 10 Watts**

Consultix WTX-610 ILLUMINATOR™ is the gold standard for test transmitters. Using modulated signals for testing is sometimes vital if you need to ensure dominance, avoid pilot pollution and validate the carrier configuration prior to deployment. Wideband operation up to 6 GHz allows the ILLUMINATOR™ to address all your future needs by covering traditional VHF and cellular bands up to C-band and 5.8 GHz wireless networks. These capabilities combined with the ultra-portable handheld form factor and innovative touch interface for maximum ease of use make the WTX-610 ILLUMINATOR™ the ideal choice for in-building and small cells professionals everywhere.
The built-In wideband power amplifier extends the ILLUMINATOR's capabilities to high power missions, whether for oDAS test and design or for performing outdoor CW model calibration.

## Smart

- CW, LTE & WCDMA modulations
- 200 to 6000 MHz in a single device
- 10 Watt Amplifier (Built-in Option)
- 1 KHz frequency resolution
- 1 dB Accuracy (Typ.)
- License upgradeable
- Up to 6 hour battery operation

## Fit

- Light weight 1.6 Kg (3.5 lbs.)
- Handheld & heavy-duty
- Touch screen operation
- Friendly user interface
- Ergonomic enclosure

| Specifications | | |
|---|---|---|
| **RF Characteristics** | | |
| RF Ports | Low-power (port 1) is standard and high-power (port 2) is optional. One port transmits at a time | |
| Frequency Range | CW | Modulated **(**Requires Modulation License) |
| | 200 MHz to 6 GHz<br>(As per selected Frequency Range) | 700 to 1000 MHz & 1700 to 2700 MHz<br>3400 to 4000 MHz (Opt. FDD5-3)<br>4000 to 4950 MHz (Opt. FDD5-4) |
| Internal Frequency Accuracy | 1 ppm | |
| Frequency Step | 1 KHz | |
| Output Power Level Steps | 1 dB | |
| Level Accuracy | ± 2 dB (Typ. 1 dB) | |
| RF Interfaces | 50 Ohm | |
| Modulations | Continuous Wave (CW), LTE-FDD (optional)* and WCDMA (optional) | |
| LTE Settings | Cell ID (Synchronization Reference Signal) and Bandwidth | |
| LTE BW | 5 MHz | |
| WCDMA Settings | Scrambling Code | |
| **Output Levels** | **CW** | **Modulated** |
| **RF Port 1** | | |
| Min. Output Power | -10 dBm | -10 dBm |
| Max. Output Power | 15 dBm: 200 to 4800 MHz<br>10 dBm: 4800 to 5500 MHz<br>5 dBm : 5500 to 6000 MHz | 15 dBm: 700 to 1000 MHz & 1700 to 2700 MHz<br>10 dBm: 3400 to 4000 MHz (FDD5-3)<br>5 dBm: 4000.1 to 4950 MHz (FDD5-4) |
| Harmonics | ≤-30 dBc at Maximum Output Power | ≤-20 dBc at Maximum Output Power |
| **Port 2 (with amplifier option iL-P2; 200 to 2700 MHz)** | | |
| Min. Output Power | 20 dBm | 30 dBm |
| Max. Output Power | 40 dBm | 33 dBm |
| **Port 2 (with amplifier option iL-P3; 3400 to 3800 MHz)** | | |
| Min. Output Power | 15 dBm | 15 dBm |
| Max. Output Power | 33 dBm | 27 dBm: 3400 to 3500 MHz<br>21 dBm: 3500.1 to 3800 MHz |
| **Port 2 (with amplifier option iL-P22; 200 to 2700 MHz)** | | |
| Min. Output Power | 20 dBm | 30 dBm |
| Max. Output Power | 33 dBm | 33 dBm |
| **Port 2 (with amplifier option iL-P4; 200 to 3700 MHz)** | | |
| Min. Output Power | 20 dBm | 17 to 30 dBm (depends on band) |
| Max. Output Power | 37 dBm; 200 to 2700 MHz<br>33 dBm; 2700 to 3500 MHz<br>31 dBm; 3500 to 3600 MHz<br>29 dBm; 3600 to 3700 MHz | 33 dBm; 700-1000 MHz & 1700-2700 MHz<br>27 dBm; 3400-3600 MHz<br>21 dBm; 3600-3700 MHz |
| **Power Supply** | | |
| Input Power | 9 to 12 VDC 17 W Max (For Base Unit without Amplifier)<br>28 VDC 45 W Max (For Base Unit with Amplifier) | |
| Battery (Requires Internal Battery Option) | Li-ion, 7.4V 10200 mAh | |
| Battery Operation Time | 6 Hours (At Continuous Maximum Output Power) | |
| **Physical Characteristics** | | |
| External Dimensions | L220 x W100 x H62 mm | |
| Weight | 1.1 Kg (2.4 lb)<br>1.6 Kg (3.5 lb) with Amplifier | |
| Operating Temperature | -10 to +40 C | |
| Interfaces | N-Type Female, SMA Female, USB and DC Input | |
| Certifications | FCC<br>CE (EMC; EN55011, EN 61000-3-2, EN 61000-3-3, EN 61326-1 and EN 61000-6-1. LVD; EN 61010-1)<br>ROHS | |
| **Standard Package** | Transmitter, AC/DC Adapter, Hard Carrying Case, Stylus Pen and User Manual | |

*Modulated power level is the RSSI measured over the entire bandwidth of occupied resource blocks. RSRP value is 22 dB below RSSI level

**Ordering Information**

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|---|---|
| Base Unit. Single Port. Requires at Least One Frequency Range License | WTX-610 ILLUMINATOR |
| Frequency Range License: 200 MHz to 6 GHz | iL-WB |
| Frequency Range License: 200 MHz to 600 MHz | iL-B1 |
| Frequency Range License: 600 MHz to 2.7 GHz | iL-B2 |
| Frequency Range License: 2.7 GHz to 4 GHz | iL-B3 |
| Frequency Range License: 4 GHz to 6 GHz | iL-B4 |
| Port 2 Activation, 2 Watt Built-in Amplifier, 200 MHz to 2700 MHz, Continuous Wave. Factory Retrofit | iL-P22 |
| Port 2 Activation, 10 Watt Built-in Amplifier, 200 MHz to 2700 MHz, Continuous Wave. Factory Retrofit | iL-P2 |
| Port 2 Activation; 2-Watt Built-in Amplifier; 3400 to 3800 MHz. Factory retrofit | iL-P3 |
| Port 2 Activation; 5-Watt Built-in Amplifier; 200 to 3700 MHz (check power level table). Factory retrofit | iL-P4 |
| 5 MHz LTE-FDD Modulation License (Supports LTE Scanners): 700 to1000 & 1700 to 2700 MHz | iL-LTE-FDD5 |
| 5 MHz LTE-FDD Modulation License (Supports LTE Scanners): 3400 to 4000 MHz | iL-LTE-FDD5-3 |
| 5 MHz LTE-FDD Modulation License (Supports LTE Scanners): 4000 to 4950 MHz | iL-LTE-FDD5-4 |
| WCDMA Modulation License (Supports UMTS Scanners) | iL-UMTS |
| Internal Battery Option* | iL-Bat |

*Battery option is available only with low power mode. Port 2 amplifier replaces internal battery


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