

Unicable II™ Cascadable switch with terrestrial input and 8x dCSS/SatCR/legacy + terrestrial outputs

Model: IDLU-UST110-CU080-32PP

Item: 5458



The Multiswitch unit connects to a Quattro LNB (default configuration) or two Wideband LNBs to support reception from 2 satellites and offers a Terrestrial input port to connect a terrestrial antenna for reception of UHF/DAB/radio broadcasts. The terrestrial signal can be amplified through a dedicated ON/OFF switch and is combined over each of the 8 output ports. The output ports operate in either dCSS/SatCR or Universal (Legacy) mode.

The Multiswitch unit can be powered through a DC input port, any of the trunk output lines or from the STB output ports (typically using a power inserter device). In typical cascaded MDU installations, the DC voltage supplied over the DC in or trunk output lines is passed through to the trunk input lines in order to power the LNB and the 'STB DC pass to LNB trunk' switch must be set to OFF.

To help the installer ensure at the time of installation that the unit's power supply is sufficient to support a full load in the future i.e. 8x STBs with all User Bands activated, the Multiswitch features a special power diagnosis test mode that is triggered automatically upon unit startup.

During this 15 second test, the Multiswitch simulates operation with full load and will light the power-diagnosis led in green if the unit is supplied with sufficient power or in amber if not.

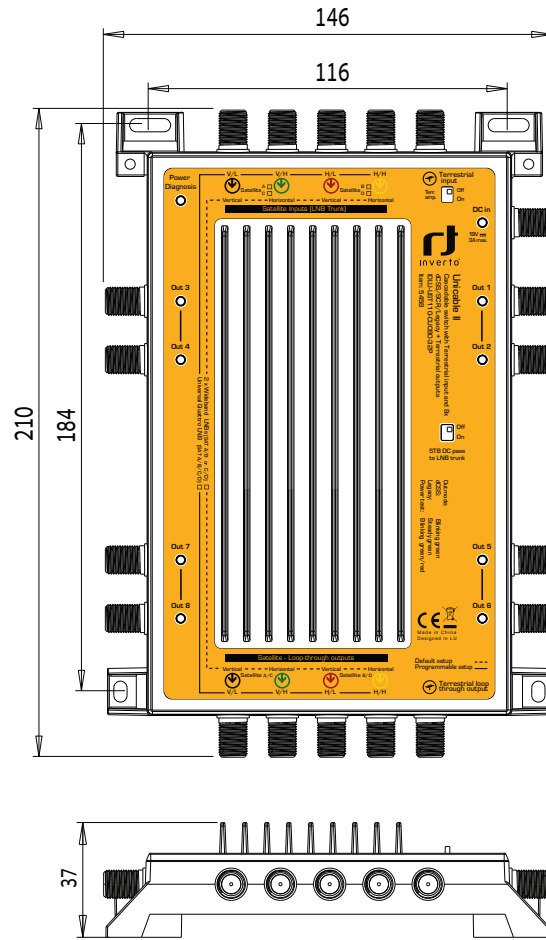
A status led, located next to each output port, indicates the operating mode of the port (Legacy=solid green, dCSS = blinking green, Power diagnosis=blinking red/green).

The configuration of the Multiswitch can be customized for different installation circumstances where parameters like LNB type (Quattro or Wideband), the frequencies and bandwidth of the User Bands as well as others can be programmed using Inverto's SatPal™ Controller or Unicable II Programmer*.

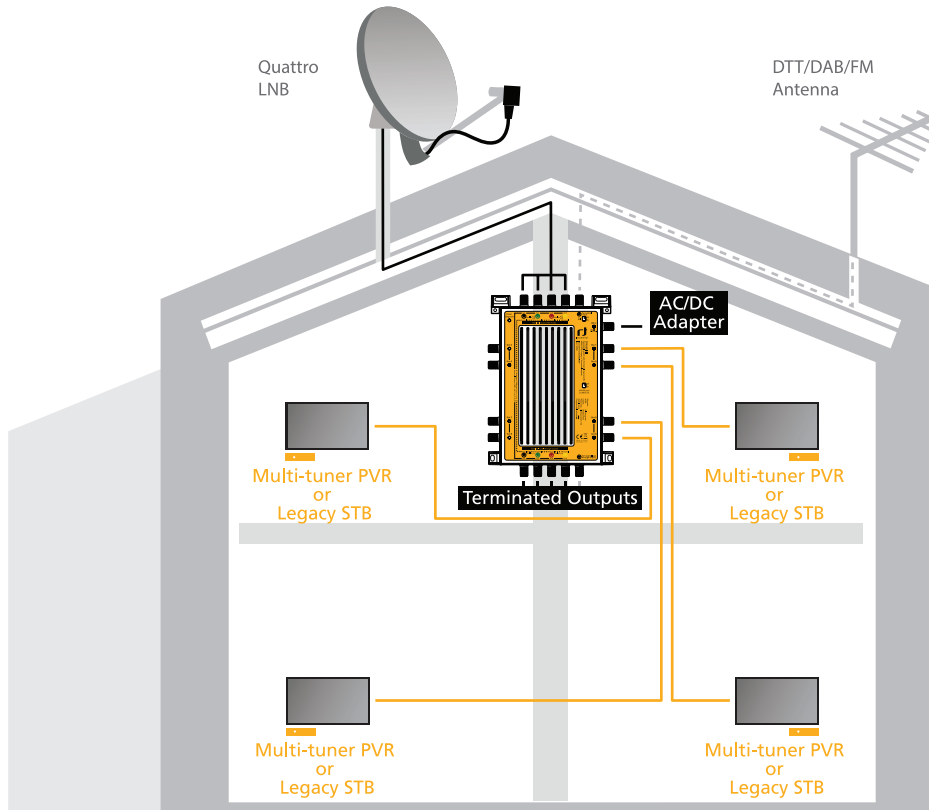
Optional accessories (sold separately):

- 5423 IDLU-ADPT03-19342-OPP MDU power supply unit, supplying up to 2 units + LNB 19 V, 3.42 A
- 5380 IDLU-PINS02-00000-OPP Power Inserter and a power supply unit 19 V, 0.94 A for a single port pair
- 5415 IDLU-SPAL03-000BT-OPP SatPal™ Controller
- 5393 IDLU-PROG02-00000-OPP Unicable II™ Programmer For Indoor and outdoor (IP54) installations

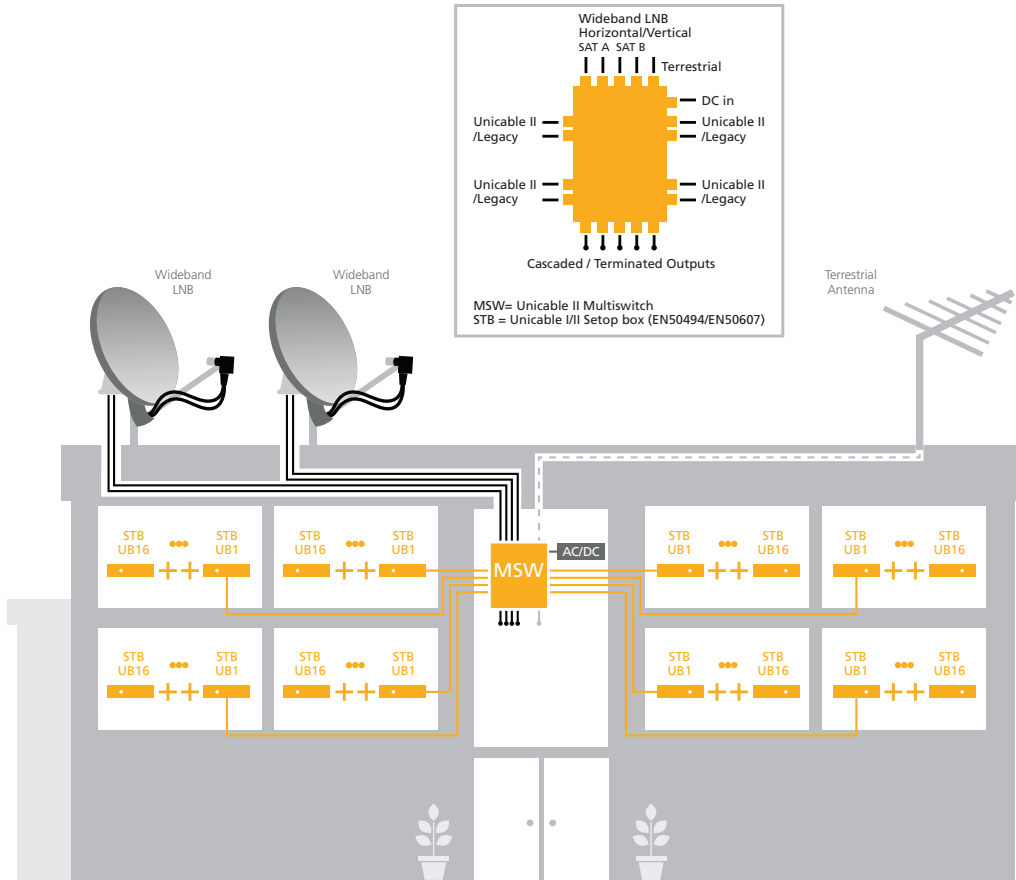
* Programmer not included, sold separately as an optional accessory.



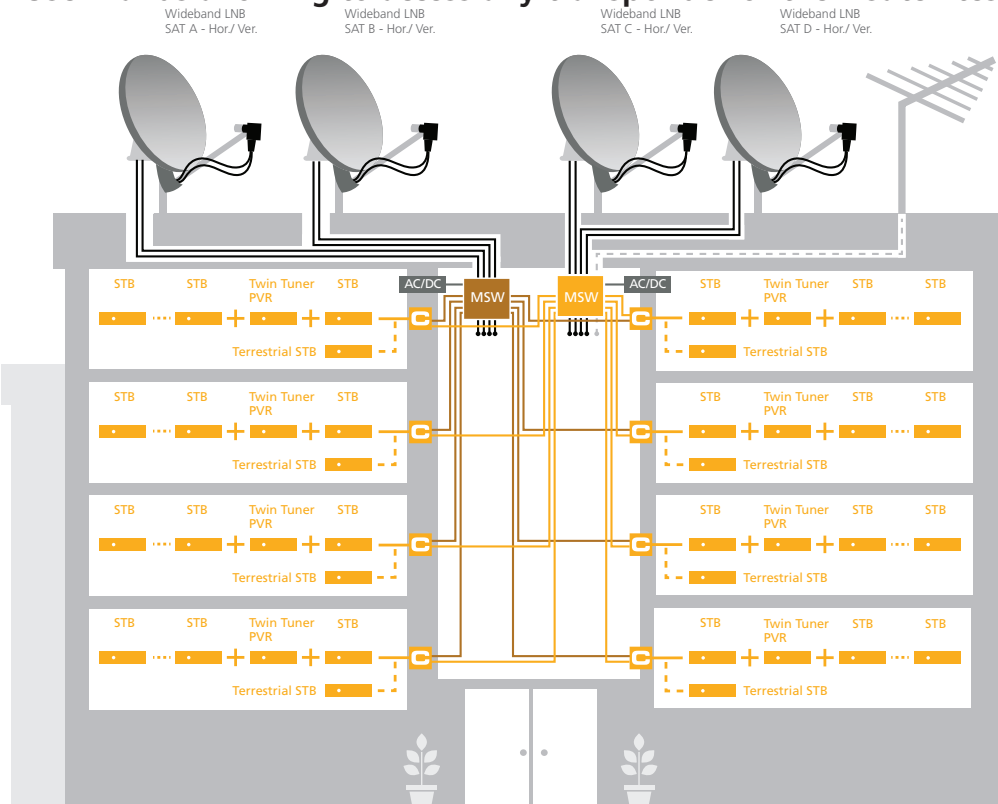
Typical single household installation



Reception of 2 satellites, each output port provides 16x dynamic User Bands allowing to access any transponder of the 2 satellites (example with four occupied output ports)



Reception of 4 satellites, each output port provides 16x dynamic User Bands allowing to access any transponder of the 4 satellites



Technical Specifications

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|---|---|
| Frequency range: satellite | Quattro LNB: 950 MHz ~ 2150MHz (default) |
| Frequency range: terrestrial | Wideband LNB: 300 MHz ~ 2350MHz 47 MHz ~ 862 MHz |
| Inputs | 4x IF inputs: - From 1x Quattro LNB (default) - From 2x Wideband LNBs 1 x UHF/VHF input from Terrestrial antenna |
| Outputs | 4x Loophrough satellite IF outputs* 1x Loophrough terrestrial output 8x auto-detect Unicable II / Legacy output ports with combined terrestrial signal. Default behavior: Legacy mode on power up, auto-switch to Unicable II dynamic mode upon receiving an EN50494/EN50607 command. |
| Input/Output impedance | 75 Ω (F-type) |
| Input power range | -50 dBm ~ -5 dBm |
| Input/Output VSWR | 2.5 : 1 |
| RF isolation: satellite/satellite (input) | 30 dB min. |
| RF isolation: satellite/terrestrial (input) | 30 dB min. |
| RF isolation: satellite ch/ch (UBs, output) | 30 dB min. |
| Loop-through loss: satellite | 4 dB max. (loss) |
| Loop-through loss: terrestrial | 8 dB @ 400~600 MHz (12 dB max.) (loss) [amplification=OFF] +11 dB @400~600 MHz (+7 dB min.) (gain) [amplification=ON] |
| Integrated phase noise | 1.5° max. |
| Output signal level (AGC) | -25 dBm (83 dBuV) |
| Gain: Unicable II™ (dCSS) output (out of AGC) | 25 dB min. |
| Gain: terrestrial signal | -19 dB @ port 4 over 400~600MHz (-25 dB min.) [amplification = OFF] +1 dB @ port 4 over 400~600MHz (-9 dB min.) [amplification = ON] * 1dB difference between adjacent ports, -1 dB from port 1 through to port 8 |
| Control protocols | EN50494 (SatCR), EN50607 (dCSS), DiSEqC1.0/2.0, 13 V/18 V + 0 kHz/22 kHz |
| Legacy port switching | V/L => 13 V/0 kHz , V/H => 13 V/22 kHz H/L => 18 V/0 kHz , H/H => 18 V/22 kHz |
| LNB power supply | 500 mA max. @ 18 VDC |
| Power consumption | 1200 mA @ 19 VDC (no load) |
| Working temperature | -20 °C ~ +50 °C |
| IP protection | IP54 |
| Product dimensions (H x W x D) | 210 mm x 146 mm x 37 mm |
| Weight | 500 g |

Unicable II™ (dCSS) port specifications

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| User band (channel) bandwidth | 46 MHz, programmable 10 MHz ~ 80 MHz |
| User band (channel) gain ripple | 3 dB max. |

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|---------------------------------|---|-------------------------------|--------------|-----------------------|------|-------------------------------|------------------------|-------------------------------|------------------------|-------------------------------|------------------------|------------------------------|------------------------|-------------------------------|------------------------|-------------------------------|------------------------|-------------------------------|------------------------|
| User band (channel) frequencies | Default Unicable II™ dynamic user bands per output port: | | | | | | | | | | | | | | | | | | |
| | <table border="0"> <tr> <td>CH1: 1210 MHz EN50607+EN50494</td> <td rowspan="8" style="vertical-align: middle;">(dcss+SatCR)</td> <td>CH9: 1340 MHz EN50607</td> <td rowspan="8" style="vertical-align: middle;">dCSS</td> </tr> <tr> <td>CH2: 1420 MHz EN50607+EN50494</td> <td>CH10: 1485 MHz EN50607</td> </tr> <tr> <td>CH3: 1680 MHz EN50607+EN50494</td> <td>CH11: 1550 MHz EN50607</td> </tr> <tr> <td>CH4: 2040 MHz EN50607+EN50494</td> <td>CH12: 1615 MHz EN50607</td> </tr> <tr> <td>CH5: 985 MHz EN50607+EN50494</td> <td>CH13: 1745 MHz EN50607</td> </tr> <tr> <td>CH6: 1050 MHz EN50607+EN50494</td> <td>CH14: 1810 MHz EN50607</td> </tr> <tr> <td>CH7: 1115 MHz EN50607+EN50494</td> <td>CH15: 1875 MHz EN50607</td> </tr> <tr> <td>CH8: 1275 MHz EN50607+EN50494</td> <td>CH16: 1940 MHz EN50607</td> </tr> </table> | CH1: 1210 MHz EN50607+EN50494 | (dcss+SatCR) | CH9: 1340 MHz EN50607 | dCSS | CH2: 1420 MHz EN50607+EN50494 | CH10: 1485 MHz EN50607 | CH3: 1680 MHz EN50607+EN50494 | CH11: 1550 MHz EN50607 | CH4: 2040 MHz EN50607+EN50494 | CH12: 1615 MHz EN50607 | CH5: 985 MHz EN50607+EN50494 | CH13: 1745 MHz EN50607 | CH6: 1050 MHz EN50607+EN50494 | CH14: 1810 MHz EN50607 | CH7: 1115 MHz EN50607+EN50494 | CH15: 1875 MHz EN50607 | CH8: 1275 MHz EN50607+EN50494 | CH16: 1940 MHz EN50607 |
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Logistical info

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| Packaging dimensions (h x w x d) | 21.3 cm x 14.9 cm x 4.4 cm |
| Packaging weight | 0.61 Kg |
| Quantity per carton | 30 |
| Carton dimensions (h x w x d) | 65.4 cm x 23.2 cm x 32 cm |
| Carton weight | 19 kg |
| Quantity per pallet | 300 |

* Unused ports need to be terminated by 75 Ohm DC-blocked terminators

For purpose of brevity, some product descriptions in this sheet remain at platform level and may not be referred to as detailed datasheets of the products. Inverto Digital Labs reserves the right to amend, omit or add products, product-lines, and / or features without notice. As product specifications may change without notice, always contact Inverto to obtain the latest product specification sheets.

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