

## 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.

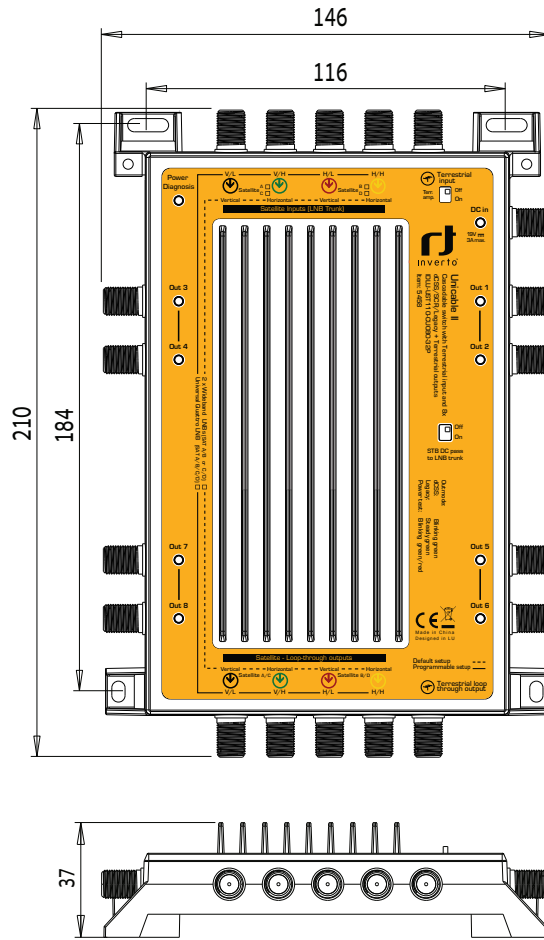
A status led, located next to each output port, indicates the operating mode of the port (Legacy=solid green, dCSS = blinking green, Power diagnosis=blinking red/green).

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\*.

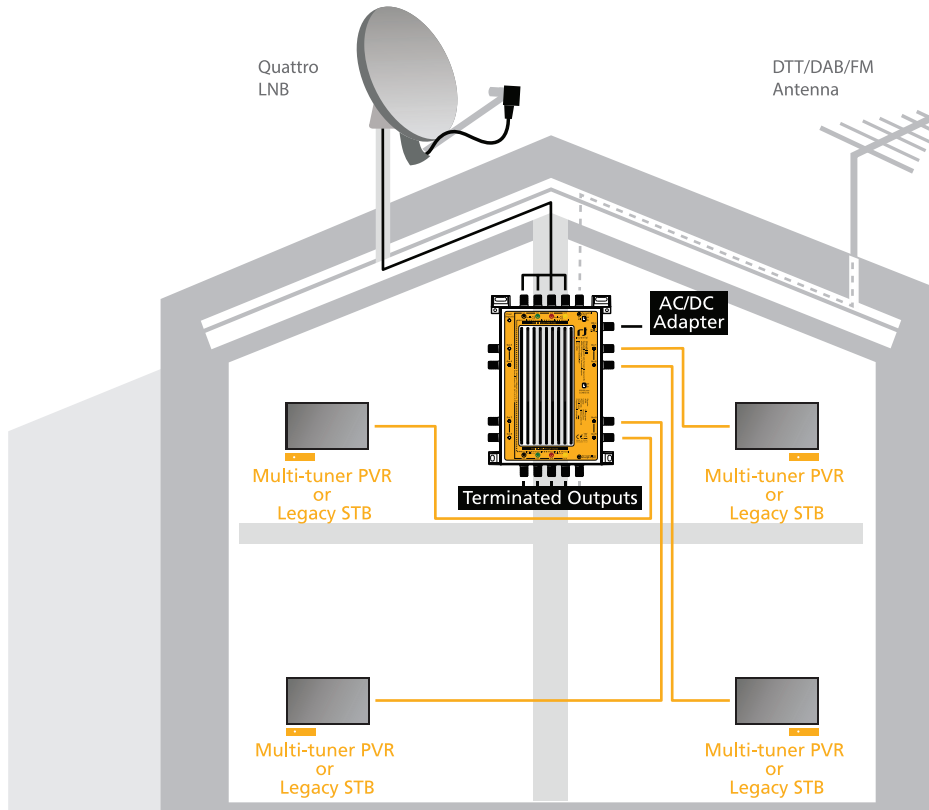
Optional accessories (sold separately):

- 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





## Technical Specifications

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

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

### User band (channel) frequencies

Default Unicable II™ dynamic user bands per output port:	
CH1: 1210 MHz EN50607+EN50494	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 80px; margin: 0 5px;"></div> <span style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">(dcss+SatCR)</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 80px; margin: 0 5px;"></div> </div>
CH2: 1420 MHz EN50607+EN50494	
CH3: 1680 MHz EN50607+EN50494	
CH4: 2040 MHz EN50607+EN50494	
CH5: 985 MHz EN50607+EN50494	
CH6: 1050 MHz EN50607+EN50494	
CH7: 1115 MHz EN50607+EN50494	
CH8: 1275 MHz EN50607+EN50494	
CH9: 1340 MHz EN50607	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 80px; margin: 0 5px;"></div> <span style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small;">dCSS</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 80px; margin: 0 5px;"></div> </div>
CH10: 1485 MHz EN50607	
CH11: 1550 MHz EN50607	
CH12: 1615 MHz EN50607	
CH13: 1745 MHz EN50607	
CH14: 1810 MHz EN50607	
CH15: 1875 MHz EN50607	
CH16: 1940 MHz EN50607	

### Logistical info

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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