



## Unicable II™ Cascadable switch with Terrestrial input and 4x dCSS /SCR / Legacy + Terrestrial outputs

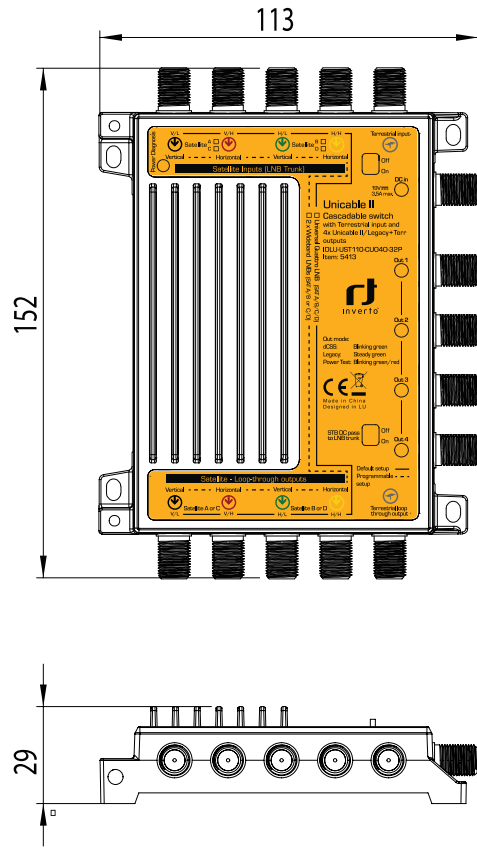
Model: IDLU-UST110-CUO40-32P  
Item: 5413



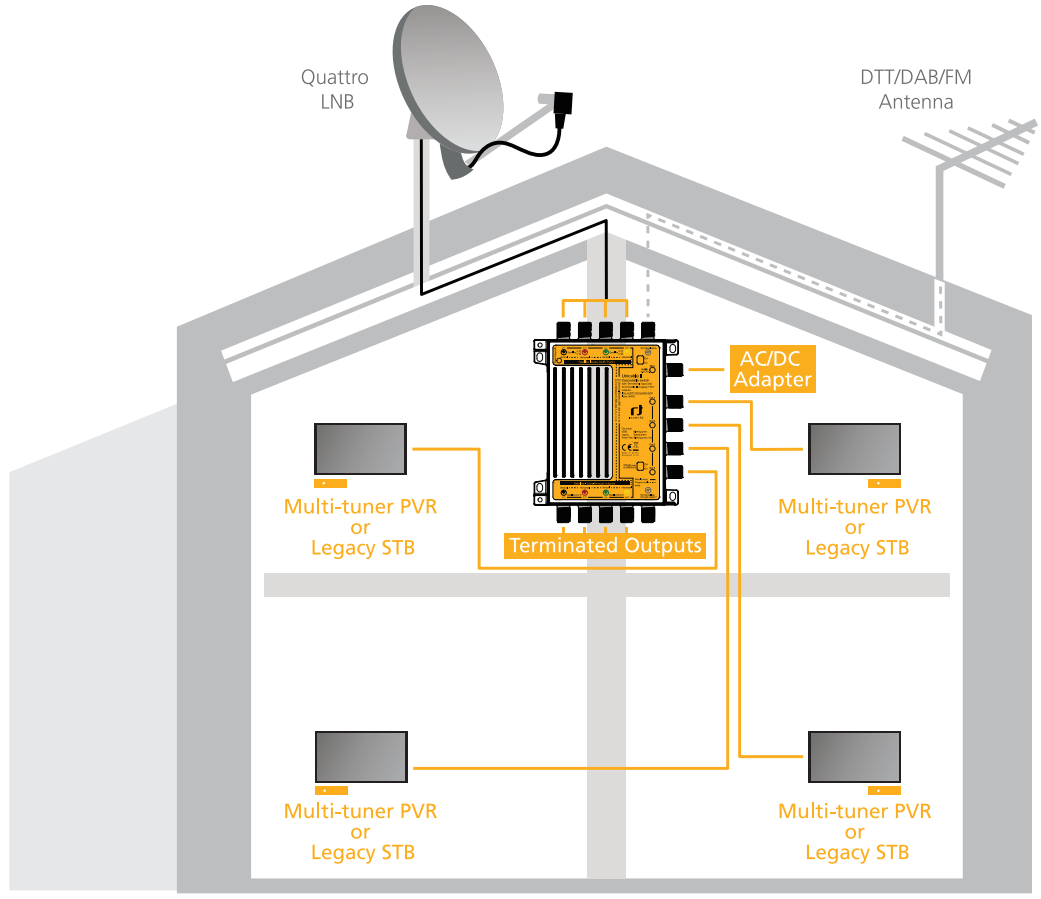
The IDLU-UST110-CUO40-32P is a small size cascadable Unicable II™ Multiswitch with 4 auto-detect output ports, each supporting Unicable II™ or Legacy functionality. The Multiswitch unit can be connected to a single satellite Quattro LNB (default configuration) or to two Wideband LNBs to support reception of 2 satellites. A Terrestrial input allows to connect a terrestrial antenna for reception of UHF/VHF/DAB/radio broadcasts. The terrestrial signal can be amplified (On/Off switch) and is combined over each of the 4 output ports. By default, each output port functions in Legacy-Mode and can be controlled through 13 V/18 V + 0 kHz/22 kHz signals or DiSEqC 1.0/2.0 commands. The port switches to Unicable II™ mode automatically upon receiving a EN 50494/EN 50607 command and provides 16x dynamic User Bands (refer to the product technical specifications for the default settings of the 16 user bands).

The Multiswitch unit can be powered through a "DC in" port, any of the "Loop-through" ports or from the STB output ports (typically through a power inserter device). In typical cascaded MDU installations, the DC voltage supplied over the "DC in" or "Loop-through" output lines is passed through to the trunk input lines to power the LNB(s), 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, the Multiswitch features a special power diagnosis test mode that is triggered automatically upon unit start-up. During this 15 second test, the Multiswitch will operate in full load and will light a power-diagnosis LED in green if the unit is supplied with sufficient power or in amber if not.

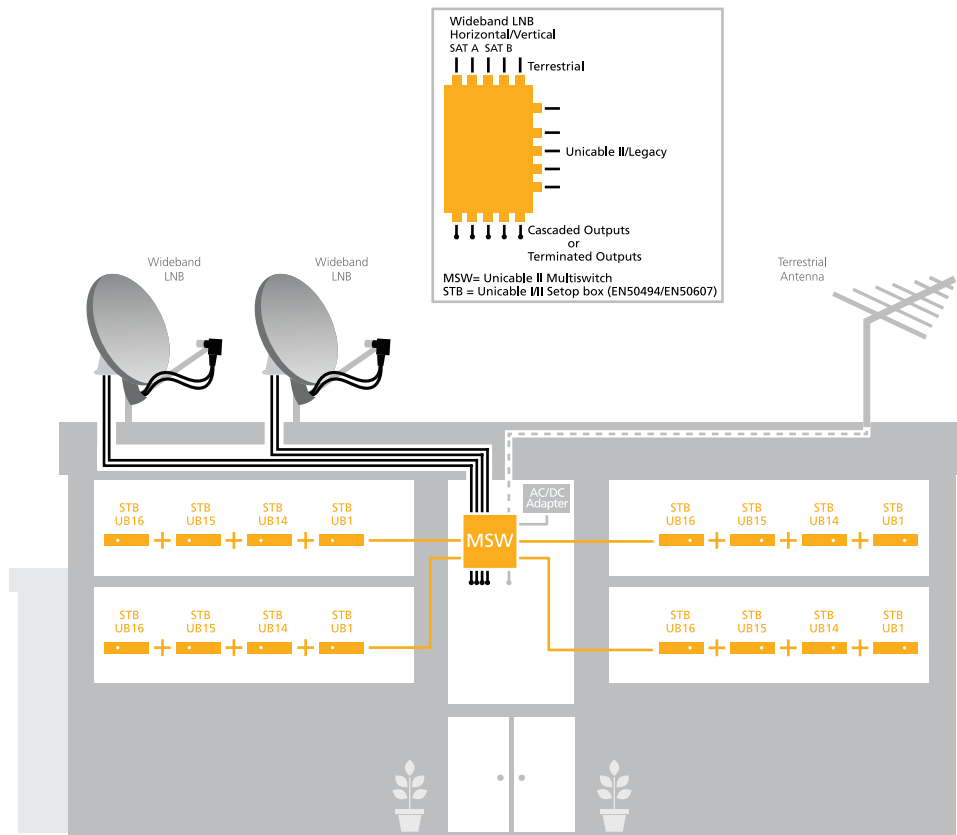
A status LED, located next to each of the output ports, indicates the operating mode of the port: Legacy = solid green, Unicable II™ = blinking green, power diagnosis = blinking red/green.



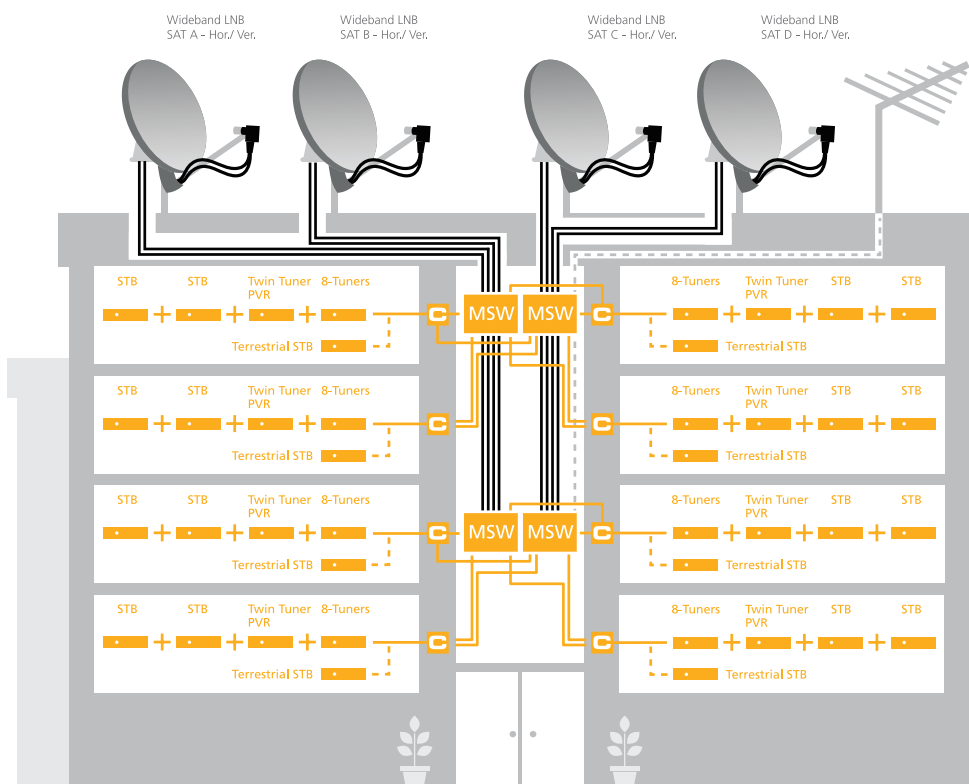
**Typical single household intallation**



**Reception of 2 satellites, each output port provides 16x dynamic User Bands allowing to access any transponder of the 2 satellites**



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



## Technical Specifications

Frequency range: satellite	Quattro LNB: 950 MHz ~ 2150 MHz (Standard)
Frequency range: terrestrial	Wideband LNB: 300 MHz ~ 2350 MHz "
	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  4x 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
RF isolation: satellite/satellite (input)	25 dB min.
RF isolation: satellite/terrestrial (input)	25 dB min.
RF isolation: satellite ch/ch (UBs, output)	28 dB min.
Loop-through loss: satellite	4 dB max. (loss)
Loop-through loss: terrestrial	8 dB max. (loss) [amplification=OFF] +12 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	-27 dB [amplification = OFF] -5 dB ~ +5 dB [amplification = ON]
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	600 mA ~ 900 mA @ 10 VDC ~ 20 VDC max.
Working temperature	-20 °C ~ +50 °C
IP protection	IP54
Product dimensions (H x W x D)	15.2 cm x 11 cm x 2.6 cm
Weight	280 g
<b>Unicable II™ (dCSS) port specifications</b>	
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: 1210MHz EN50607+EN50494 (dCSS+SatCR) CH2: 1420MHz EN50607+EN50494 (dCSS+SatCR) CH3: 1680MHz EN50607+EN50494 (dCSS+SatCR) CH4: 2040MHz EN50607+EN50494 (dCSS+SatCR) CH5: 985MHz EN50607+EN50494 (dCSS+SatCR) CH6: 1050MHz EN50607+EN50494 (dCSS+SatCR) CH7: 1115MHz EN50607+EN50494 (dCSS+SatCR) CH8: 1275MHz EN50607+EN50494 (dCSS+SatCR) CH9: 1340MHz EN50607 (dCSS) CH10: 1485MHz EN50607 (dCSS) CH11: 1550MHz EN50607 (dCSS) CH12: 1615MHz EN50607 (dCSS) CH13: 1745MHz EN50607 (dCSS) CH14: 1810MHz EN50607 (dCSS) CH15: 1875MHz EN50607 (dCSS) CH16: 1940MHz EN50607 (dCSS)
	* Unused ports need to be terminated by 75 Ohm DC-blocked terminators
<b>Logistical info</b>	
Packaging dimensions (h x w x d)	15.5 x 11.8 x 3.5 cm
Packaging weight	0.3 Kg
Quantity per carton	30
Carton dimensions (h x w x d)	48.2 x 24.9 x 50 cm
Carton weight	10.71 kg
Quantity per pallet	840

**Optional accessories (sold separately):**

- 65 W power supply unit, supplying up to 4 units + LNB(s)
  - 5582 65W Power Supply adapter for Unicable II™ multiswitches (EU plug) IDLU-ADPT04-19342-EPM
  - 5581 65W Power Supply adapter for Unicable II™ multiswitches (UK plug) IDLU-ADPT04-19342-UPM
  - 5423 65W Power Supply adapter for Unicable II™ multiswitches (EU plug) IDLU-ADPT03-19342-OPP
  - 5422 65W Power Supply adapter for Unicable II™ multiswitches (UK plug) IDLU-ADPT02-19342-OPP
  
- 18 W wall power supply, supplying up to 2 units + LNB(s)
  - 5431 18W Power Supply adapter for Unicable II™ multiswitches (UK plug) IDLU-ADPT01-000UK-OPP
  - 5346 18W Power Supply adapter for Unicable II™ multiswitches (EU plug) IDLU-ADPT01-00000-OPP
  
- Power Inserter
  - 5344 Unicable II™ Power Inserter, 5-2400MHz IDLU-PINS01-00000-OPP
  
- Equipment for programming the multiswitch
  - 5415 SatPal™ Controller IDLU-SPAL03-000BT-OPP
  - 5393 Unicable II™ programmer IDLU-PROG02-00000-OPN

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.

For further details contact: [sales@inverto.tv](mailto:sales@inverto.tv)

FTA Communication Technologies S.à r.l. Tel. +352 264 367 1 Fax. +352 264 313 68

