Series 15100
Universal Satellite Hub

ST Engineering

The Series 15100 Universal Satellite Hub is ideal for service providers operating multiple high performance IP broadband networks. It incorporates the latest advances in performance, enabling network operators and military service providers to deliver the highest quality connectivity regardless of bandwidth requirements.

The chassis houses up to 20 line cards, providing a very modular approach to growth. Operators can start off with just a few remotes in one network and easily scale to several thousand remotes on multiple networks. Equipped with 5 intermediate frequency (IF) interfaces accessing C, Ku, or Ka band on up to 5 satellites, the Series 15100 brings scalability designed for growth and performance.

With ST Engineering iDirect's most advanced, built-in Group QoS functionality, network operators can increase quality of service levels, bandwidth optimization, and traffic prioritization for complete flexibility when managing the end-customers' SLAs.

The Series 15100 Universal Satellite Hub provides high availability by integrating redundancy into all the critical components of the chassis, including auto switchover, timing group synchronization and fault isolation for geographic redundancy.

The Universal Hub and line cards are easily configured, monitored, and controlled through the iVantage® and iDirect Pulse® network management systems, our complete suite of software-based tools for configuring, monitoring and controlling networks from one location.

EVOLUTION

EVOLUTION DEFENCE

VELOCITY

powered by Newtec iDirect

Markets

Enterprise
SME
Cellular Backhaul
Government / Defense
Offshore and Maritime
Aero
Land Mobility

Main Advantages:

- Compact, 11U, 19" rack mountable chassis with 20 line card slots enabling multiple in-and outbound networks
- 5 IF interfaces supporting multiple bands and transponders on up to five satellites
- Supports DVB-S2/DVB-S2X (ACM) on the outbound and ATDMA on the inbound
- 40 Gigabit Ethernet LAN interfaces supporting high carrier symbol rates
- High level of redundancy (hub daisy chaining and geographic redundancy)
- Enables Virtual Network Operator management reducing capital investments and increasing ROI

Hub Chassis Specifications

Number of IF Modules	5 IF Tx/Rx Interfaces
Number of Slots	20 line card slots, 4 per IF interface
Line Cards and Remotes	Works with any iDirect line card and remote, please refer to product sheets for software dependencies

Power Specifications

Input Voltage Range	200–240 VAC Single Phase; 10 Amps max.
Power Frequency	50/60 Hz
Main Power Module	1500 Watt, 1+1 redundancy, hot-swappable
Heat Dissipation	5118 BTU/hr.

Mechanical and Environmental

Size
W 44.45 cm x D 60.96 cm x H 48.3 cm (17.5"x 24"x 19" (11U))

Weight
Empty 50.1 kg (110.4 lbs), Loaded - Varies

Operating Temperature and Humidity
0º to 45º C (+32º to +113º F), 0–95% non condensing

Fans
Three fans, 2+1 redundant, hot-swappable

LEDs
Line card status, power status, fan status

Reference Clock Module
10 MHz/PPS, 1+1 redundant, with auto fail-over, hot-swappable, external GPS (10 MHz/PPS) ref. capable

RF Specifications

IF Frequency Range	950–2000 MHz
IF Interface	Type F
Impedance	75 Ω
IF Insertion Loss	9 dB +/- 2 dB

Additional Hub Components

Protocol Processor
Minimum of 2 servers, 1+1 redundant or Intelligent Gateway (DVB-2X only)

NMS servers
Minimum of 2 servers, 1+1 redundant

LAN Switch
2 switches, 48 port Gigabit Ethernet LAN switch

KVM Switch
8-Port

Networking Software
iDX 2.0 and above with iVantage NMS, Velocity 1.1 and above with iDirect Pulse