

# DPX-400-S-BT-DSL600A

## VDSL/ADSL LAN Router with optional 3.5/4G for Serial TSC SCATS & Bluetooth data paths

*Draft - Strictly "Commercial in Confidence"*



*The specifications in this document may change without notification (front panel to be finalised)*

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DPX-400-S-BT-DSL600A is a SCATS® compatible Industrial ADSL2+/VDSL2 CPE router with a 3.5/4G system alternate path for SCATS and Bluetooth data collection..

***(Support ADSL2+ and SNMP management)***

The Industrial xDSL router is equipped with four (3 available) Gigabit LAN ports and is compliant to ITU-T G.993.2 and G.993.5 standards and supports VDSL2 profile 30a that features 100Mbps of symmetric data. It is perfectly suitable for triple-play applications. Housed in metal DIN rail compatible enclosures

### **Vectoring Technology Friendly Mode Support**

Vectoring is a transmission method that employs the coordination of line signals for reduction of crosstalk levels and improvement of performance. It is based on the concept of noise cancellation, much like noise-cancelling headphones. The ITU-T G.993.5 standard, "Self-FEXT cancellation (vectoring) for use with VDSL2 transceivers" (2010), also known as G.vector, describes vectoring for VDSL2. The scope of Recommendation ITU-T G.993.5 is specifically limited to the self-FEXT (far-end crosstalk) cancellation in the downstream and upstream directions. The far end crosstalk (FEXT) generated by a group of near-end transceivers and interfering with the far-end

transceivers of that same group is cancelled. This cancellation takes place between VDSL2 transceivers, not necessarily of the same profile

For efficient management, via Web interface, the router can be programmed for advanced management functions such as QoS (Quality of Service)/DSCP, IEEE 802.1q Tag VLAN, SNMP v1/v2c/v3, IGMP v3 and enhanced security functions such as Packet filtering, DMZ, Mac Address based filtering, Parental Control, Application based filtering.

## LED INDICATORS

- VDSL2/ADSL2+: LAN: Act/Link, Power, VDSL2: Link
- Router Ethernet Port active. Power
- DPX400 Mobile broadband LEDs: Tri-colour (Red/Amber/Green) LEDs. Power, WLAN, Mobile Broadband, Service Type, TX/RX and Signal Strength indicators
- Bluetooth – OK, Data and Start-up of module

The following shows the band profile and band plan compatibility:

Band Profile List		Band Plan List	
<b>A0</b>	VDSL2 Profile8a	<b>B0</b>	Annex A M1_EU32
<b>A1</b>	VDSL2 Profile8b	<b>B1</b>	Annex A M9_EU64
<b>A2</b>	VDSL2 Profile8c	<b>B2</b>	Annex B 997-M2x-A (B05)
<b>A3</b>	VDSL2 Profile8d	<b>B3</b>	Annex B 997-M2x-M (B06)
<b>A4</b>	VDSL2 Profile12a	<b>B4</b>	Annex B 997-M1c-A-7 (B07)
<b>A5</b>	VDSL2 Profile12b	<b>B5</b>	Annex B 998-M1x-B (B08)
<b>A6</b>	VDSL2 Profile17a	<b>B6</b>	Annex B 998-M2x-A (B10)
<b>A7</b>	VDSL2 Profile30a	<b>B7</b>	Annex B 998-M2x-M (B11)
<b>A8</b>	VDSL2 Profile17b	<b>B8</b>	Annex B 998-M2x-B (B12)
		<b>B9</b>	Annex B 998-M2x-NUS0 (B13)
		<b>B10</b>	Annex C
		<b>B11</b>	Annex C 8K
		<b>B12</b>	Annex B 997-M2x-NUS0
		<b>B13</b>	Annex C 1M1
		<b>B14</b>	Annex C 8K 1M1
		<b>B15</b>	Annex B 998E17-M2x-A
		<b>B16</b>	Annex B 998E17-M2x-NUS0

Band Plan Band Profile	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16
A0 (8a)	X	X	O	O	X	O	X	X	X	X	X	X	X	X	X	X	X
A1 (8b)	X	X	O	O	X	O	X	X	X	X	X	X	X	X	X	X	X
A2 (8c)	X	X	O	X	O	X	X	X	X	X	X	X	X	X	X	X	X
A3 (8d)	O	O	O	X	O	O	O	O	O	X	X	X	X	X	X	X	X
A4 (12a)	O	O	X	X	O	O	O	O	O	X	X	X	X	X	X	X	X
A5 (12b)	O	O	X	X	O	O	O	O	O	O	X	X	X	X	X	X	X
A6 (17a)	O	X	X	X	O	O	O	O	O	X	O	X	X	O	X	X	X
A7 (30a)	O	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
A8 (17b)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

**Note: O = Compatible; X = Not Compatible**

# DPX-400-S-BT-DSL600 Technical Specifications

## DSL FEATURES

- ITU-T G.993.5 Vectoring  
ATM and PTM transmission mode auto detection( ADSL Annex B backward compatible)
- high bandwidth up to 100Mbps symmetric over line ports
- 8a, 8b, 8c, 8d, 12a, 12b, 17a, 17b, and 30a band profile and 997, 998 band plan
- ATM-TC, ATM and AAL5 (ATM Flow Throughput / OAM Cell Filter and Forwarding / AAL5 SAR:PVC / ATM Traffic Class / ATM PVC Shaping / ATM PVC Scheduling)
- ATM Total Upstream Priority Queues
- uPnP/PPPoE/PPPoATM/IPv4/IPv6/NAT/NAPT
- static routing for IPv4 and IPv6 forwarding
- Firewall functions contains Packet filtering, DMZ, Mac Address based filtering, Parental Control, Application based filtering
- DHCP Server/DHCP Relay/DHCP Client/DHCPv6 Client/DHCPv6 Server/DNS/DNS Proxy or Relay/DNSv6 Proxy or Relay/NTP Client/HTTP1.1 server
- Multicast IP table/IGMP v3 Proxy and Snooping
- IEEE 802.1p VLAN Priority and mapping to DSCP
- Port Based VLAN & 802.1q VLAN tagging
- HTTP/HTTPS(SSL) web management, remote management and monitor
- configuration backup and restore
- surge protection for Line port
- power redundant and wide range dual power input(DC12V ~ 48V)
- Overload Current Protection
- wide range operating temperature(-20 C ~ 70 C)
- Reverse Polarity Protection
- alarm contact (relay output - 1 A @ 24 VDC), DIN-Rail mount installation
- Metal case design and compliant with IP30 standard
- Router & Switch(Bridged) mode selection
- Supports jumbo frame up to 1680 bytes
- Supports 8 queue MFC/DSCP both type QoS
- Dual Firmware Image Backup
- Dying Gasp

## DPX400 MOBILE BROAD-BAND

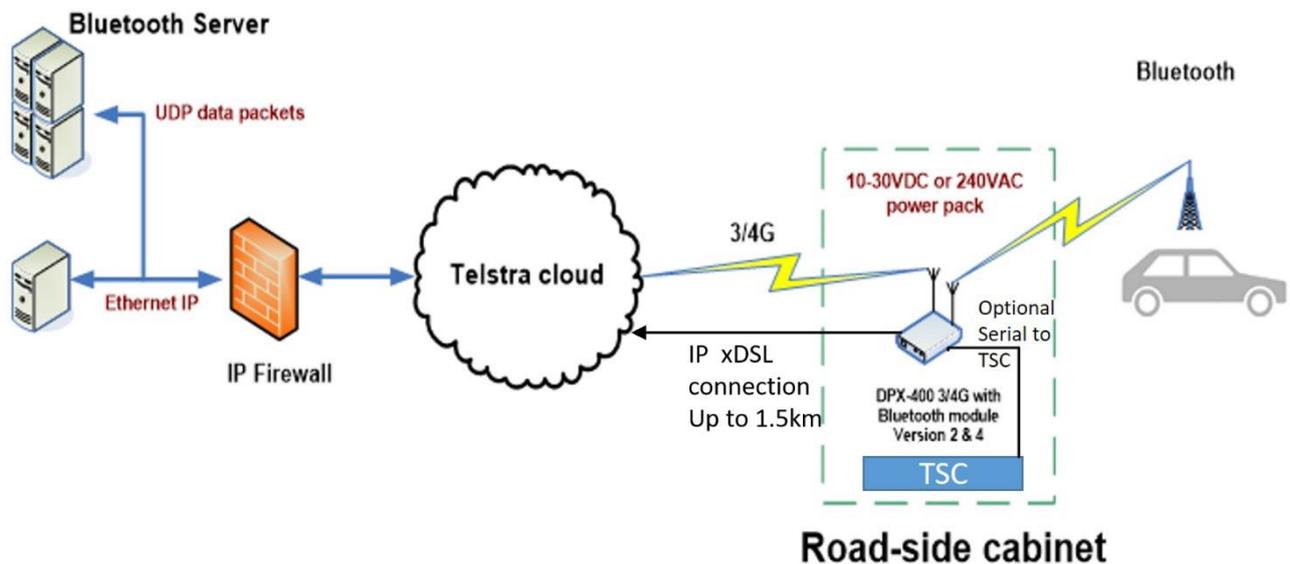
Based on Telit Module HE910-DG

Product	Operating Bands 3G	Frequency Bands [MHz]
HE910-DG	B5, B8, B2, B1, B4	800/850, 900, AWS1700, 1900, 2100

### Bluetooth application Overview (optional serial TSC connection via 3.5G/VDSL)

The DPX-400-BT Bluetooth is used for detecting and collecting MAC address for travel time applications. It is capable of detecting MAC addresses and uploading via UDP each 15 second scan period using a single antenna for Bluetooth

### DPX400-S-BT-DSL600 Mobile Broadband (3/4G) Bluetooth modem device



## BLUETOOTH FEATURES

- Bluetooth v4.0 (Bluetooth low energy and Classic Bluetooth)
- Range 250 -300 m, external antenna
- Throughput 1.3 Mbps (Classic Bluetooth)
- Low Emission Mode® Prevents disrupting other 2.4GHz radios
- Wireless Multi-drop™ -simultaneous connections to Bluetooth low energy & Classic Bluetooth devices
- Extended Data Mode™ individually controlled multipoint data channels 1
- Quality of Service (QoS)

## ANTENNA CONNECTORS

- 1x SMA connectors for 3G/4G
- 1x Reverse SMA connectors for Bluetooth
- SIM Security Management (PIN configuration, enable and disable)

## DPX400 ADMIN & CONFIGURATION

- Web-based User Interface for device status and configuration
- Configuration file backup and restore for quick device configuration
- SMS messaging (Send/Receive) of simple diagnostic
- Support for Ping , ICMP Ping
- Diagnostic serial USB Log
- NTP Server Support for network time sync of device's system clock
- Diagnostic option and Reset via SMS command option
- Multiple firmware image storage on device and dynamic install
- Triggered firmware upgrade via USB

## DPX400 RESET BUTTON

- Reset button (recessed, requiring pen/paperclip) with three functions: Power LED wakeup, Reset/re-boot and reset unit to factory defaults

## TEMPERATURE

- Operating Temperature: -40°C to +70°C
- Storage Temperature: -40°C to +70°C

## DPX POWER SUPPLY

- Power input and I/O via 2 way Molex mini-fit, DPX400 DC Power (8 - 30V DC) , idle ~100mA @12VDC
- DPX400 and DSL600 router system total power usage 9W

## DIMENSIONS & MOUNTING OPTIONS

- Device dimensions (excluding external antenna): 236 x 125x 85 mm
- DIN Rail mount support optional

## CERTIFICATIONS

- CE (Europe)
- RCM (Australia) \* *Pending*
- RoHS

**END**