Wireless Link for Philips HeartStart MRx

Philips HeartStart
Telemedicine Server

Cellular Network

Router
Mode

Hotspot
Mode

Bridge
Mode

Wireless Link

WiFi Access Point

Internet

PCR Mobile

Wireless Link is a portable wireless communication adapter for the Philips HeartStart MRx. It supports multiple modes of operation to transmit event or patient data. Using bridge mode for WiFi connection or router mode for cellular connection, the Wireless Link can transfers data to the Telemedicine System. Using WiFi access point mode it allows a mobile PC with WiFi to connect to the HeartStart MRx for uploading PCR data for further processing. Wireless Link fits conveniently and securely inside a pouch of the standard HeartStart MRx carrying case. It transmits data automatically from HeartStart MRx to the Telemedicine System using either a WiFi or a cellular connection.

The Wireless Link is not visible to other devices on the WiFi network thus preventing unauthorized connection attempts. The Wireless Link can be configured for connection with up to 254 WiFi access points. If it is in an area where more than one configured access point is available, it will select the most suitable access point based on a connection priority scheme defined during configuration.

During EMS transport of a patient the Wireless Link can connect securely to the HeartStart Telemedicine System, either using a WiFi connection to an installed Cellular Gateway in the ambulance or directly over the Cellular Network using its built-in 3G cellular modem thereby providing additional flexibility to transfer data securely to the HeartStart Telemedicine System. When the ambulance is back at its base station, the Wireless Link can connect to the base station's WiFi network to upload data from the HeartStart MRx.

Wireless Link uniquely supports both GSM and CDMA cellular technologies and can be configured for use with either GSM or CDMA networks. This gives the user flexibility to change from one type of compatible cellular network to another without having to buy another adapter.

Powered from the HeartStart MRx, the Wireless Link design uses low power management techniques to conserve battery power. When not transmitting, the Wireless Link can be put into sleep mode by the HeartStart MRx and woken up when transmission of data is required. This allows for the Wireless Link to be on standby with minimum impact on the HeartStart MRx battery.

Supported Wired Interfaces
Ethernet 10/100 Mbps, Serial RS232

Cellular
Technology: GSM or CDMA (configurable)

HSPA, HSDPA, UMTS,

1xEVDO Rev A & Rev 0

3G: HSPA or 1xEVDO

2G (Fallback): GPRS/EDGE, 1xRTT

Antenna: <= 3dBi, Monopole, Omni directional

Frequency: 850/900/1800/1900/2100 MHz

Data Rates:	Uplink*	Downlink*
HSPA	5.76 Mbps	14.4Mbps
WCDMA	384 Kbps	384 Kbps
EDGE	118.4 Kbps	236.8 Kbps
GPRS	42.8 Kbps	86.6 Kbps
1xEVDO	1.8 Mbps	3.1 Mbps
1xRTT	153.6 Kbps	153.6 Kbps

Wireless LAN
Compliance: 802.11 b/g (2.4 GHz)

Security: WEP, WPA-PSK, WPA2-PSK

Encryption: TKIP, AES (64/128 bit)

Data Rates: 1, 2, 5.5, 11 Mbps for 802.11 b;

6,9,12,18,24,36, 54 Mbps for 802.11g

Antenna: <= 3dBi, Monopole, Omni directional

LED Indicators
Power:	PWR
System Status:	RUN
Wireless 802.11:	WF
Ethernet (Link & Activity):	ETH
Cellular Connection:	CEL

Power Source
DC 12V, +/- 10%

Current Draw
WiFi operating	254 mA, max
2G Upload	496 mA, max
3G Upload	496 mA, max
LPM/Idle	<50 mA, RMS @ 22˚C, DTR OFF

Environmental
Operating: 32˚F ~ 113˚F (0˚C ~ +45˚C)

Storage: -4˚F ~ 158˚F (-20˚C ~ +70˚C)

Relative Humidity: Up to 95% non-condensing

Helicopter: MIL STD 810E 514.4 Category 6, UH60

Compliance
Regulatory

System

FCC Part 15 Subpart B Class B

IC ICES-003 Class B

EN55011/CISPR 11 Class B

EN 301 489-1,-7,-17,-24

EN 60950-1

Wireless LAN

FCC Part 15 Subpart C

IC RSS-210

EN 300 328

Cellular

FCC Part 2, 22, 24, 27

IC RSS-102,-132,-133,-139

EN 301 511

EN 301 908-1, -2

Cellular Network

PTCRB, GCF, CTIA

Cellular Operator

AT&T, Verizon, Rogers

Environment

RoHS – Directive 2011/95/EC

WEEE – Directive 2002/96/EC

Wireless Link
Fits snugly inside the pouch of Philips HeartStart MRx carrying case.

Enclosure

Contents:	Titan II, Antennas, cabling
Material:	Microblend Plastic,
Color:	Philips Ultra Dark 10714
Weight:	12.95 oz - 367 g
Size:	1.66" (H) x 4.60" (L) x 3.46" (W) 42mm (H) x 117mm (L) x 88mm (W)
Connections:	Cable with Serial DB9 and Ethernet RJ45 mating connectors for HeartStart MRx

Software
Functionality: Ethernet to WiFi (Bridge)

Ethernet to WiFi (Access Point/Hotspot)

Ethernet to Cellular (Router)

Configuration: On-board web based, accessed via Internet Explorer (IE 7 or higher) under Windows® platform. Export/Import capability to allow user to backup/restore configuration data. Exported configuration data can be used for rapid configuration of multiple Wireless Link adapters.

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