



## OUTDOOR WI-FI AP/STN - TWI 1040 - PE

Telenet's TWI series of 802.11b/g/n compliant 2.4GHz Wireless LAN products feature 1x1 and 1x2 MIMO antennas. Future versions will have 4x4 MIMO and more. These come in various form factors – For Outdoor applications, For an indoor AP/Router. These can be configured as AP / Station. It can operate in Point-to-Point and Point-to-Multi-Point links. It can be configured in WDS mode as well. It can be available with Wireless WAN and Wireless LAN capabilities as well.

The TWI series has a high performance radio output and advanced networking and management capabilities. It can support NAT Routing, DHCP server, DHCP relay, DHCP with option 60/82, QoS, Security based on WPA2/WPA/WEP, Rate Limiting, Broadcast Storm control, etc.

For different applications suitable antenna is provided with appropriate gains. It could have a Omni antenna, Directional antenna as per the requirement of the deployment. The Antenna can have single polarization or multi-polarization, with V/H or Cross Polar.

The housings are built according to the applications, such as indoor housing and outdoor housing with ruggedized weatherproof design to meet various IP classes of protection.

<b>1</b>	<b>GENERAL</b>	
1.1	General Standard	IEEE 802.11b/g/n WLAN, IEEE 802.3/802.3u Ethernet IEEE 802.11e QoS
1.2	Ethernet Interface	Four auto MDX, auto sensing 10/100 Mbps, RJ45 port
1.3	Operation modes	Station WDS Bridge
1.4	QoS	WMM
1.5	Certification	FCC Compliant
<b>2</b>	<b>SYSTEM</b>	
2.1	CPU	180 Mhz or better
2.2	Flash / SDRAM	4 / 8 MB
<b>3</b>	<b>NETWORKING</b>	
3.1	Networking	DHCP client, Configurable DHCP option 60
3.2	Test	PING function and Trace Route function
3.3	VLAN	VLAN Support; Management VLAN
<b>4</b>	<b>ROUTER FEATURE</b>	
4.1	Networking	Static route, NAT/PAT, DMZ, DHCP Client/Server/Relay, DNS Proxy, DDNS
4.2	VPN	PPTP/L2TP/IPSec pass-through Pass through
<b>5</b>	<b>RADIO</b>	
5.1	Number of Radio	One 802.11 b/g/n Radio
5.2	Frequency Range	2400 - 2490Mhz
5.3	Channel Number	ETSI 1-13
5.4	Channel Bandwidth	Narrow Bandwidth 20 / 40 MHz Support ; Auto in STA mode

5.5	RF transmission power	20dBm
5.6	Receiver Sensitivity	-94 dBm
6	<b>Antenna</b>	
6.1	Internal Antenna gain	8dBi
6.2	Internal Antenna3 dB Beamwidth	65 Degrees / 65 Degrees
6.3	Internal Antenna Polarization	Horizontal Polarization
7	<b>MANAGEMENT</b>	
7.1	NMS	CENTRALISED WEB BASED MANAGEMENT SYSTEM for Monitoring,Configuration and Software Upgrade
7.2	Management – Device	HTTP& HTTPS Web-based GUI, Telnet Management, button for factory reset,
7.3	SNMP	SNMP V1 & V2, SNMP traps for RSSI / Signal Quality Degradation, Interference , Congestion , Packet Drop
7.4	Firmware Upgrade	Automated centralized Firmware Upgrade &WebUI manual upgrade ; Keep setting when Firmware Upgrade
7.5	LED indication	Power, Ethernet , Wireless signal strength
8	<b>Ethernet Interface -Specification</b>	
8.1	Ethernet Connectors	RJ-45 Jacks, 4 Ports 10/100 Base-TX with Auto-MDIX 4-Ports PoE PD (Data+Power IN) – For powering of device
8.2	Standards	IEEE Std.802.2 10BASE-T 10Mbps,Half/Full Duplex; IEEE Std.802.23u 100BASE-TX,10/100Mbps, Half/Full Duplex;IEEE Std.802.3x Flow control and Back-pressure.
8.3	Surge Protection	Protection against initial ESD/EFT Transient Suppression
8.4	Protocols	CSMA/CD
8.5	Technology	Store & Forward switching architecture
8.6	Network Cable	2-Pair UTP/STP Cat 5 24AWG Cable
8.7	LED's	Link/Activity per Ethernet Port
8.8	Power Over Ethernet Injector: Power Supply(IN) for CPE.	Power over Ethernet 12V, 1A (12 Watts) on Spare pair to supply power to the CPE
8.9	No. of Ethernet Ports that can Power ON the CPE.	Anyone/All of the four LAN ports
8.10	Max Packet size supported	1536 bytes
8.11	Port Isolation	Using Port-based VLAN
8.12	Support Broadcast Storm control per port	Yes

9	<b>SECURITY</b>	
9.1	Wireless Security	WEP, WPA2 - PSK(TKIP/AES) WPA2-AES with 802.1x (for Metro LAN mode) 802.1x Supplicant EAP-TTLS MSCHAPV2 EAP-TLS, EAP-TTLS and PEAP support
10	<b>POWER</b>	
10.1	Power options	100-270 V 50/60 Hz, Indian PIN type Powering through POE DC power
10.2	Power Method	Passive Power over Ethernet
10.3	Max Power Consumption	4 Watts
10.4	Power Supply	12V, 1A (12 Watts). Power Supply and POE injector included
11	<b>Physical</b>	
11.1	Physical Dimension/ Form factor	Compact and easily mountable
11.2	Enclosure Size	175 x 168 x 52 mm
11.3	Weight	<500 g
11.4	Operating temperature	(0 to 50 deg cent) Outdoor Temperature
11.5	Humidity	5 to 90% Condensing
12	<b>Environment Protection</b>	
12.1	Compliances	WEEE, RoHS
12.2	Shock and Vibration	ETSI300-0110-1.4
12.3	Protection	Dust Protected , Protected from Spray Water upto 60 Degree from V , 50 cm Drop Test
12.4	Enclosure Characteristics	Outdoor UV Stabilized Plastic