

# **Telenet Point to Point Radio**

# **TWI P2P5N26**

Wireless 2x211N Outdoor Point to Point Radio with Built-in 13dBi@5GHz Antenna

#### **Features**

•	Up to 26dBm output power
•	IEEE 802.11a/n compliant
•	Supports up to 300Mbps physical data rates
•	Antenna Alignment Signal Survey
•	Distance Adjustment for long range transmission
•	Supports IEEE802.11i , IEEE802.1x authentication
•	Transmission Power Control (IEEE 802.11h TPC)
•	Dynamic Frequency Selection (DFS)
•	Supports Passive Power-over-Ethernet (PoE)

SYSTEM INFORMATION				
LAN Interface	2 x 10/100 BASE-T Ethernet Port			
Power	7.Motte			
Consumption	7 Watts			
Power Supply	5V to 24V DC, power adapter and injector included			
Power method Passive PoE(24V DC),				
RoHS Compliant Yes				
Lumidity	Operating:5% to 95% (non-condensing)			
Humidity	Storage: Max.90% (non-condensing)			
Temperature Operating:-20°C to 70°C				
Range	Storage: -40°C to 90°C			
<b>Dimension</b> 223 x 123 x 60 (mm)				



		F	RADIO SPECI	FIC	CATIONS					
			TX SPEC	IFIC	CATIONS					
		DataRate			TX Pov				lerance	
802.1	l1a		6-24Mbps 36Mbps 48Mbps		26dB 24dB			+2dB +2dB		
		48Mbps			23dB			+2dB		
		54Mhns			22dB	lm			+2dB	
	DataRat	TX Power	Toleranc			DataRat	TX Power		Tolerance	
	е	(2 chains)	е			е	(2 chains)		1	
	MCS 0/8	3 26dBm	±2Db			MCS 0/8	24.5dBm		±2dB	
	MCS 1/9	25dBm	±2Db			MCS 1/9	24dBm		±2dB	
	MCS 2/10	24dBm	±2Db			MCS 2/10	23dBm		±2dB	
	MCS 3/11	23dBm	±2dB	5GHz		MCS 3/11	22dBm		±2dB	
5GHz 11n HT 20	MCS 4/12	12dBm	±2dB		11n HT 40	MCS 4/12	21dBm		±2dB	
	MCS 5/13	21dBm	±2dB			MCS 5/13	20dBm		±2dB	
	MCS 6/14	20dBm	±2dB			MCS 6/14	19dBm		±2dB	
	MCS 7/15	17dBm	±2dB			MCS 7/15	16dBm		±2dB	
			RX SPEC	:IFI	CATIONS				<u> </u>	
	Data	Data Sensitivity T		Toleranc		Data	Sens	sitivity	Tolerance	
	Rate (2 chains) e			Rate	(2 c	hains)				
	6M	-96dBm	±2dB			24M	-90	)dBm	±2dB	
802.11a	9M	-96dBm	±2dB		802.11 a	36M	-87dBm		±2dB	
	12M	-95dBm	±2dB			48M	-83dBm		±2dB	
	18M	-93dBm	±2dB			54M	-80	)dBm	±2dB	
5GHz 11n	MCS0	-96dBm	±2dB		5GHz 11n	MCS0	-92	2dBm	±2dB	



			F	RADIC	SPECI	FIC	ATIONS				
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			DataRate		X SPEC	FIC	CATIONS	wor		To	olerance
802.11a			6-24Mbps			TX Power 26dBm 24dBm				+2dB +2dB	
			36Mbps								
	-		48Mbns		23dBm				+2dB		
			54Mhns				22dF	3m			+2dB
	DataRat e		TX Power		Toleranc			DataRat	TX Power		Tolerance
			(2 chains)		е			<b>e</b> (2		nains)	
	MCS 0/	8	26dBm	±	2Db			MCS 0/8	24.5	dBm	±2dB
	MCS 1/	'9	25dBm	±	2Db			MCS 1/9	24dBm		±2dB
	MCS			+				MCS			
			24dBm	±	2Db				23	dBm	±2dB
	2/10							2/10			
	MCS							MCS			+
			23dBm	±2dB	2dB				22dBm		±2dB
	3/11						5GHz	3/11			
5GHz 11n	MCS	5		±2dB			11n HT	MCS			
HT 20	4/12		12dBm				4/12	21dBm		±2dB	
	7/ 12						40	7/12			
	MCS .			- 1-			MCS	20.10		±2dB	
	5/13		21dBm	±2dB		5/13	20	dBm			
	3, 13							3/13			
	MCS							MCS			
	6/14		20dBm		±2dB			6/14	19dBm		±2dB
	0,14							0/14			
	MCS							MCS			
	7/15		17dBm	±	±2dB			7/15	16	dBm	±2dB
	7/13							7/13			
HT 20	MCS1		-94dBm	±2	2dB	HT 40		MCS1	-90dBm		±2dB
	MCS2		-92dBm	±2	2dB			MCS2	-87	'dBm	±2dB
	MCS3		-87dBm	±2	2dB			MCS3	-84	ldBm	±2dB
	MCS4		-84dBm	±2	2dB			MCS4	-82dBm		±2dB
	MCS5		-80dBm	±2	2dB			MCS5	-78	BdBm	±2dB
	MCS6		-79dBm	±2	2dB			MCS6	-76	idBm	±2dB
	MCS7	,	-77dBm	±2	2dB			MCS7	-74	ldBm	±2dB



#### **FIRMWARE SPECIFICATIONS**

### **Multiple SSID**

• Supports up to 4 virtual access points (VAP) per radio, with unique BSSID. Each VAP can configure their own security and differentiated services.

#### **Long Range Support**

- Suitable for longrange wireless deployment with Proprietary Long Distance Algorithm of ACK and CTS timeout adjustment support.
- Provides recommended values for the parameters as well as allow for manual fine-tuning for optimal performance.

#### **Signal Strength Indicators**

• LEDs are adjustable to display 4 different level signal strength

### **Variable Spectrum Bandwidth Support**

• Options to select operation over 5MHz,20MHz and 40MHz spectrum bandwidth



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FIRMWARE INFORMATION	Access Points				
	• Station				
	Station WDS				
Operating Modes	Repeater WDS				
operating.	Wireless Adapter				
	• Station + Router				
	• Access Point + Router				
	Static IP				
	Dynamic IP				
WAN Type	• PPPoE				
	• PPTP				
	HTTP / HTTPs Web Server				
Device Management	• SNMP V2c				
Device Management	• Telnet / Secure Shell (SSH)				
	• Event Login (Syslog)				
Data Capture & Notification	DetailedStatistics per Client				
Virtual Access Point (VAP)	Up to 4 SSIDs with unique MAC Addresses (BSSID)				
	Built-in DHCP server				
	Transmission Power Control (One dB per step)				
Advanced Features	Closed System (Suppress SSID)				
	Transmission Rate Control				
	Spanning Tree Protocol				



OTHER PROMINENT FEATURES	DESCRIPTION
Long Range Parameter Settings	Distance adjustment for long range transmission
CPE Point-to-Point (PtP)	Ideal as CPE device connecting PtP with a central AP
	Device power from PoE through ethernet cable provides flexible
Power with PoE	installation.
IFFF 903 11h (DFC 9 TDC)	Enables worldwide operation through support for standards- based
IEEE 802.11h (DFS & TPC)	Dynamic Frequency Selection (DFS) and Transmission Power Control
	(TPC)
SNMP Trap	SNMP Traps enable an agent to notify the management
Signal Strength LEDsIndicators	4 Step Progressive Bars. Each bar represents a progressive increase in signal strength, with 4 bars representing maximum signal strength (100%).
DHCP Relay (Only in Gateway or Wireless Routing Client Mode)	Allows DHCP Clients on different subnets to get IP address from central DHCP server.
Remote Upgrade of Firmware	Allows user to upgrade their firmware through Telnet/SSH
RIP 1 / 2 (Only in Gateway or Wireless Routing Client Mode)	Routing Information Protocol Version 1/2
Tag and Untag VLAN/VLAN Pass- through	<ul> <li>a. Tag VLAN Pass-through mode in AP/Transparent Client link</li> <li>b. Wireless untag Vlan to Ethernet Tag Vlan mode</li> <li>c. Wireless tag Vlan to Ethernet Tag Vlan mode</li> </ul>



## Specification for 13dBi A-band Antenna

5GHz, 13dBi Antenna Spec		12dD:				
Gain	13dBi					
Radiation		Directional				
Frequency Range		5.45-5.875 GHz				
Polarization		Dual – Polarization				
Horizontal -3dB		30 degrees				
Beamwidth						
Vertical -3dB Beamwidth		20 degrees				
Front-to-Back Ratio	>25 dB					
VWSR	≥1.15:1					
Return Loss	≥14dB					
Point to Point Isolation	≥12dB	5Ghz to 6Ghz Range Plot				
Return Loss & Isolation Plot	9 -10 -10 -20 -20 -30 -30 -40 -5.0	Return Loss, $ S_{11} $ Return Loss, $ S_{22} $ Isolation, $ S_{21} $ Isolation, $ S_{12} $ 5.2 5.4 5.6 5.8 6.0  Frequency, GHz				

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