

## TR-5a Series

### All-in-One Advanced AP/PtP/CPE Model

Tranzeo is pleased to announce our TR-5a Series 5.3/5.4/5.8 GHz\* products. These are integrated fully functioning radios. That means these units can be configured as an **Access Point**, a **Point to Point** bridge, or a **Client Adapter (CPE)**.

#### Overall Features:

##### Dual Ethernet Ports

This allows you to daisy-chain radios at your installation sites (depending on power requirements). Perfect for back to back point to point scenarios. Also great for installing peripheral Power over Ethernet devices like weather monitoring or security cameras.

##### More Robust Routing Features

##### Tunneling Protocol Support

Includes support for tunneling protocols such as VPN, PPTP, RSA, etc.

##### Low Power Requirements

Excellent for solar and other alternative power source installations. TR-5a Series requires only 7 Watts.

#### Access Point Features:

##### Wireless Distribution System (WDS)

WDS allows Access Points to be wirelessly connected to each other while also servicing clients.

#### Back Panel



##### Wi-Fi Protected Access (WPA)

WPA improves on the security features of WEP. It includes improved data encryption (AES) and user authentication.

##### WPA and WEP LEDs

Outside LEDs allow you to easily see if WEP or WPA is activated on your Access Point.

#### Client Adapter (CPE) Features:

##### Alignment LEDs

Now you can align your client and point to point installations without having to log into the radio. Get visual signal strength at a glance by using this great feature.

#### Controllable High Gain Output

All radios have +13dBm of output. Power can be scaled back for closer installations to avoid noise issues and to meet local regulatory requirements.

\*Not all channels approved for use in all areas.

# TR-5a Series Specifications

Features					
Standard			802.11a		
Frequency Range			5170 MHz to 5805 MHz		
Radio Mode			Access Point / Point to Point / Customer Premise Equipment		
Communication Method			Half-Duplex		
Transmit Power			+13dBm max		
Receiver Sensitivity			-73dBm @ 54Mbps, -85dBm @ 6Mbps		
Polarization			Horizontal or Vertical		
Antennas					
Model	Type	Wind Load (N)		Beamwidth	
		100 mph	125 mph	Horizontal	Vertical
TR-5a-Nf	N-Connector	105	165	N/A	N/A
TR-5a-20f	20dBi Panel (internal)	105	165	8.7°	7.7°
TR-5a-24f	24dBi Panel (internal)	182	285	8.7°	7.7°
TR-5a-26f	26dBi Grid (external)	149	232	6°	6°
TR-5a-29f	29dBi Dish & Radome (external)	350	547	6°	6°
TR-5a-32f	32dBi Dish & Radome (external)	787	1230	4°	4°
TR-5a-V15f	15dBi Vertical Sector (external)	52	82	5°	120°
TR-5a-V17f	17dBi Vertical Sector (external)	52	81	5°	60°
TR-5a-H16f	16dBi Horizontal Sector (external)	105	164	90°	6°
Management					
Remote Configuration			Based on IP Address		
Device Management			Windows Utility, Web-Based Management, SNMP (MIB-II and 80211 mib compliant)		
Protocol Supported			TCP/IP		
Security			40 bits and 128 bits WEP encryption, Media Access Control address filter (MAC), WPA		
Ethernet Connector			10/100 base T (Water Tight RJ-45)		
Operating Temperature			-65°C to +60°C		
Warranty			1 Year Depot		
Dimensions					
TR-5a-24f			16" X 14-1/4" (radio only)		
TR-5a-Nf / TR-5a-20f / TR-5a-26f / TR-5a-29f / TR-5a-32f / TR-5a-V17f / TR-5a-V15f / TR-5a-H16f			13" X 10-1/8" (radio only)		
Power Supply					
Standard			AC Wall Plug Input: 120V 60Hz Output: 18V, 1000mA		
Optional			AC Wall Plug Input: 120V 60Hz Output: 24V, 1000mA		
Data Rates and Modulations					
Data rate (Mbps)	Modulation	Coding Rate	Coded bits per subcarrier	Code bits per OFDM symbol	Data bits per OFDM symbol
6	BPSK	1/2	1	48	24
9	BPSK	3/4	1	48	36
12	QPSK	1/2	2	96	48
18	QPSK	3/4	2	96	72
24	16-QAM	1/2	4	192	96
36	16-QAM	3/4	4	192	144
48	16-QAM	2/3	6	288	192
54	64-QAM	3/4	6	288	216