

DESCRIPTION

Application: The Tower Gateway Base Station (TGB) is a two-way application that sends and receives transmissions from FlexNet SmartPoints in predetermined intervals. TGB's are strategically located within an area to insure coverage requirements are achieved. The TGB units can be housed on typical communications towers and/or on a utility's property should they meet the criteria for installation. Once the data is received at the TGB, the information is then forwarded to the Regional Network Interface (RNI) typically located at the utility.

Operation: The TGB was designed to insure data integrity and reliability. The TGB microprocessors employ multiple levels of access control to ensure that the only authorized users access the system. Access, authentication and authorization is controlled by a username and password restricted requirements. Users attempting to access the TGB will be required to submit a username and password using the Secure Shell Login (SSL). The secured login capability at the TGB site allows the end user to access redundant stored data should the communications link to the Regional Network Interface (RNI) breakdown and the customer requires data. In addition, when data is received at the TGB, the data is wrapped with a timestamp associated with the receive time, Time of Intercept (TOI) and then forwarded. Each packet is uniquely identified with a customer mask combined with the TGB identification. Data stored on the TGB remains encrypted and the encryption keys are never stored on the same equipment as the data.

The features incorporated in the TGB provide the industry's most reliable data collection system. Incorporated in the design, the system provides assurance that data will not be lost and can also be held for extended periods of time. One of the primary features of the TGB is its ability to store thirty (30) days worth of data. This feature provides the ability for the end user to access the tower should an extended outage occur. The TGB also incorporates other alternative communication methods in the chance that the primary communication link is disabled. In addition, the TGB provides an eight (8) hour battery backup in case the primary source of power is interrupted. In the case of multiple TGB sites in the coverage area, neighboring TGBs can accept and process data if required.

TGBs are strategically placed throughout the service territory to maximize coverage and minimize infrastructure requirements. Through the process known as propagation modeling, the locations of TGBs are determined. By incorporating numerous factors such as power output, tower heights, and terrain propagation modeling can predict infrastructure requirements and present a clear picture prior to deployment of the coverage provided by the TGB. This process maximizes coverage with the least amount of infrastructure compared to other systems operating at lower power output levels.



SPECIFICATIONS

DIMENSIONS	22" W x 25-1/2" D x 48" H (indoor unit) 30" W x 28" D x 58" H (outdoor unit)
WEIGHT	240 lbs (indoor unit) 660 lbs (outdoor unit)
RF DATA RATE	8 KBps Normal Mode
FREQUENCY RANGE	Input 901 – 902 MHz
MODULATION	7 Level FSK, 13 Level FSK
NETWORK CONTROL CENTER COMMUNICATIONS	TCP/IP
SENSITIVITY	-121 dBm Normal Mode
COMPLIANCE	FCC CFR 47: Parts 15, 24, 90, 101 Compliant Licensed Operation Industry Canada (IC) RSS-119, RSS-134
POWER SUPPLY	120 V grounded line at 10' Maximum (indoor unit) 120/240 V grounded line (outdoor unit)
TRANSCIVER OPERATING TEMPERATURE	-40° C to +85° C -40° F to +185° F
ANTENNA REQUIREMENTS	External Omni Directional