

FlexNet™ Base Station

Transceiver



Empowering Utility Networks

The FlexNet™ Base Station is a long range radio transceiver that communicates information to and from the utility Regional Network Interface (RNI) with FlexNet SmartPoint™ modules deployed throughout a water, gas or electric utility network. FlexNet Base Station transceivers are mounted in NEMA-certified enclosures at strategic locations within your service territory, ensuring optimal coverage over large geographic areas.

FlexNet Base Station transceivers utilize primary-use, FCC-licensed frequencies in the 900 MHz narrowband PCS or MAS radio spectrum, allowing your system to broadcast at an industry-leading 30 watts of power (6 watts for Metro). Not only does this translate into superior performance and signal clarity, but significantly less radio infrastructure as compared to networks relying on unlicensed/unprotected frequencies.

Base Station S50/S100
Single Long Range
Base Station



Base Station T50/T100
Tri-sector Long Range
Base Station



Base Station D50/D100
Dual Transceiver Long
Range Base Station

Base Station METRO
Single Short Range
Base Station



Applications

FlexNet Base Stations offer true two-way communications including top- and middle-of-minute (MOM) intervals with:

- Advanced Meter Infrastructure (AMI) - electric, water and gas
- Distribution Automation (DA)
- Demand Response (DR)
- Home Automation Networks (HAN)

Components

- GPS receiver with 1ms sampling
- Duplexer for single antenna; antenna combiner for multi-unit applications
- Low-noise receiver amplifier (LNA)
- IP-addressable power supply
- Battery charger
- 8-hour battery backup
- Alarms and reporting capability
- Backhaul via Ethernet/IP

Configurations

Model	S50/S100	D50/D100	T50/T100	Metro
Bandwidth	50 or 100 KHz	50 or 100 KHz	50 or 100 KHz	50 or 100 KHz
Transceivers	One	Two	Three	One
Spectrum	Licensed PCS/MAS	Licensed PCS	Licensed PCS	Licensed PCS/MAS
Receiver Sensitivity (all models)				
Normal	-122 dBm			
1/2 Baud Rate	-125 dBm			
Boost	-132 dBm			
Demodulation (all models)				
Normal Mode	7 FSK, 8 kbps			
C&I Mode	7 FSK, 4 kbps			
Priority Mode	13 FSK, 8 kbps			
Boost Mode	7 FSK, .8 kbps			
Double Density Mode	13 FSK, 16 kbps			
Transmitter				
Output Power	30W/45 dBm	30W/45 dBm	30W/45 dBm	6W/37 dBm
Modulation	2 FSK (5/10 kbps)	2 FSK (5/10 kbps)	2 FSK (5/10 kbps)	2 FSK (5/10 kbps)
Frequency Stability	± 0.05 PPM -30° to +60° C	± 0.05 PPM -30° to +60° C	± 0.05 PPM -30° to +60° C	± 0.05 PPM -30° to +60° C
FCC Type Acceptance	Part 15, 24, 90, 101	Part 15, 24, 90, 101	Part 15, 24, 90, 101	Part 15, 24, 90, 101
Enclosure Options				
	Indoor - Short	Indoor - Tall	Outdoor	Metro
Height	48 in. (122 cm)	84 in. (213 cm)	58 in. (147 cm)	37 in. (94 cm)
Width	24 in. (61 cm)	24 in. (61 cm)	24 in. (61 cm)	24 in. (61 cm)
Depth	28 in. (71 cm)	28 in. (71 cm)	28 in. (71 cm)	23 in. (58 cm)
Max. Capacity	2 transceivers	3 transceivers	2 transceivers	1 transceiver
Voltage	120 VAC	120 VAC	240 VAC	120 VAC

For more information, visit us at sensus.com

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