



Microcom Design, Inc.

# Model XPRESS-1

## Integrated Satellite Remote Data Collection DL-XP1



### Description

The Xpress integrated system is a unique packaging of Microcom's GTX-1.0 Satellite Transmitter-Data-Logger and UB6 Satellite Antenna, and solar power supply. This package is compatible for use in GOES, METEOSAT and GMS networks. Xpress has a built-in solar panel and GPS receiver / antenna. The construction is rainproof (IP66) intended for extended deployment in harsh environments. The Xpress is supplied with Microcom's universal mount that allows convenient antenna aiming for azimuth and elevation.

The connectors and cables required are reduced to a minimum. Sensor interface of SDI-12 is emphasized to minimize I/O connections along with the Tipping Bucket Input.

Power consumption of the GTX is 60 milliwatts with a 2 second hourly transmission typically used with water level and / or rainfall data transmission. This is supported by the standard 1 watt solar panel. The 2 watt panel will support twice that power consumption (120 milliwatts) at latitudes to + / - 50 degrees. Recommended sensors and operating modes are made in the manual.

The specified operating temperature range of -40 to 55 C has been verified by testing at USGS HIF facilities. Call or email for test data and other references. (this includes the power system).

Installation may be accomplished by setting the system up in the office. The unit may be operating during transport then simply bolted in place in the field and then the SDI-12 sensor connected.

A variety of cover colors are available. Consult factory for configurations and colors.

### Major Sub-elements

#### Data Transmission

**GOES CS 1.0 B Certification (CS 2.0 upgrades will be available estimated fall 2009)**

**Commensurate ARGOS, SCD-1 , METEOSAT, GMS (MTSAT), and INSAT Certifications**

EIRPS can be adjusted from 47 to 37

#### Power System

Based on sealed lead acid batteries of 4.5 amp / hour at 12.5 volts. Base solar power is a 1 watt panel (1.5 watt peak).

#### GTX-1.0 Transmitter/Datalogger

**Antenna is UB6 with 6.5 dB gain**

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## Specifications:

**Weight:** 17 lb.

**Size:** 12 inch diameter center section with 4 inch mounting tab, top and bottom covers are 10 inch diameter by 4 inches high.

**Connectors:** Black CP type is standard with optional metal circular MIL type. There are no external RF connections. Sensor connections is the only required field installation connection required.

**Operating temperature Range:** -40 C to 55 C

## Options:

Hydrophobic coating

Colors other than white

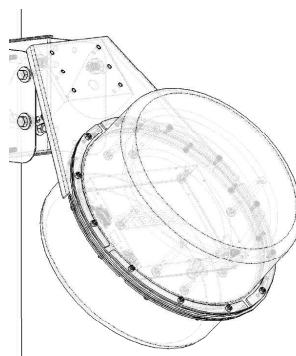
2.5 watt solar panel option (includes temperature compensated regulator)

SDI-12 Analog conversion modules

YK version for low sun and cold weather operation



River Level from Bridge



3 D Wire Frame



Rain Gauge

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