



MOTO⁴**WI**

- Fully integrated indoor or outdoor mountable package including all headend radio and modem equipment
- Flexible design allowing optional integral mounting of sector antenna to save on tower space
- Non-Line-Of-Sight OFDM radio transmission
- Time Division Duplex (TDD) transmission protocol
- Adaptive high-order modulation 4/16/64 QAM
- 2/5 W transmit power options in the 2.5-2.7 GHz band
- Omni, three, four, or six sector cell configuration
- Layer 2 network interface
- IEEE 802.1q (VLAN) support
- Standard-based network management: SNMP and web-based, CLI, FTP



EXPEDIENCE®

NLOS BASE STATION
INTEGRATED RADIO MODEM
HIGH-SPEED WIRELESS ETHERNET SWITCH

Non Line-of-Sight Wireless Base Station **A Flexible Solution for Mass-Market Applications** **(BTS-2300C/BTS-2500C/BTS-3300C/BTS-3500C/BTS-3700C)**

Designed for ease of installation in a number of different configurations, the flexible design of Motorola's Expedience base station will keep costs down as your system needs change by supporting a highly scalable system architecture for both rural and metropolitan areas. In conjunction with the RSU, OSU and MSU customer terminals, the BTS introduces automatic adaptive modulation to maximize the capacity of the airlink over a wide variety of configurations and propagation conditions.

The Expedience base station is a fully self-contained, environmentally-hardened unit. It offers maximum flexibility for installation at the tower top, in an equipment enclosure, or mounted on a rooftop or pole. Connections to the unit include a single coaxial antenna feed, -48 VDC power, and GPS UTC (Universal Time, Coordinated) timing signal used to synchronize base stations installed in the same geographical area.

The base station can be used in both sectorized or omnidirectional configurations, using standard antennas. Channel setup or changes can be done remotely using the Expedience Network Management System and do not require any hardware changes at the site. Stacking of up to four base stations on a single antenna is easily accomplished using accessory combiner modules.

Maximum output power is 2 watts. An optional 5W configuration is available for the BTS-2500C, requiring the use of an accessory channel filter. The network interface to the Expedience base station is a standard Ethernet 10/100 base-T connection, using a special weatherproof connector. Complete management of the base station can be accomplished through a local serial port, telnet, web interface or using the SNMP-based Expedience Network Management System.

A complete on-site installation includes a transient voltage suppressor (TVS) module for each base station. The TVS module also allows the Expedience base station to be powered by -48V, +48V, or floating 48V power supplies. To power the base station in a cell, a dual redundant 48VDC power package is available.

BTS SPECIFICATIONS

General RF		Connections	
Frequency of operation	2300-2500 MHz (BTS-2300C) 2496-2692 MHz (BTS-2500C) 3300-3400 MHz (BTS-3300C) 3400-3600 MHz (BTS-3500C) 3600-3800 Mhz (BTS-3700C)	Data interface	IEEE 802.3 10base-T / Ethernet
Channel bandwidth	3/3.5/5/5.5/6 MHz (BTS-2300C/ BTS-2500C/BTS-3300C) 3/3.5/5/5.5/6/7 MHz (BTS-3500C/ BTS-3700C)	Management console port	RS-232 serial interface connector
Modulation	OFDM - 4/16/64 QAM	RF interface	COAX "N" type female connector
Operating mode	Time Division Duplex (TDD)	All ports lightning or ESD protected	
Transmitter		General	
RF output power	2 Watts (5 Watts with an accessory channel filter - BTS-2500C only)	Enclosure	Indoor / outdoor weather sealed
RF output impedance	50 Ohms	Operational temperature range	-40°C to 60°C
Frequency stability	2.5 ppm at -30°C to +60°C (0.003 ppm when locked to GPS)	Operational altitude	up to 12,000 ft (3,658m)
Output power variation	±1 dB over 200 MHz band	Relative humidity	0 to 100%
Receiver		Dimensions (Excluding antenna)	20.5 in (H) x 8.2 in (W) x 6.3 in (D) 52 cm (H) x 20.8 cm (W) x 15.9 cm (D)
RF sensitivity	-96 dBm	Input voltage	36 to 60 VDC
RF input impedance	50 Ohms	Average power consumption	100 Watts
		Weight (Excluding antenna)	24.4 lb. (11 kg)
Safety and Electromagnetic Emissions Certifications			
BTS-2500C		FCC part 15 class A; FCC part 27 Industry Canada RSS-193	
BTS-2300C/BTS-3300C/ BTS-3500C/BTS-3700C		Type approvals in progress ETSI 	

