INTEGRATED TOWER SITE TECHNICAL DATA

Costworx has integrated a functional organisation into each of its units. The main mission of this organisation is to check the product quality and compliance with international engineering codes and standards.

Material Specification

Material	Standard	Steel Grade	Tensile Strength	Yield Strength
Structural steel	GB 700-88	Q235	375~500 N/sq.mm	235 N/sq.mm
	GB/T 1591-94	Q345	470~630 N/sq.mm	345 N/sq.mm
Bolts	BS 3692	8.8	830 N/sq.mm	664 N/sq.mm

Standard Codes of Practice

ANSI/TIA 222-G: 2005 Structural Standards for Steel Antenna Towers and Antenna Supporting Structures

ANSI/AISC 360-05: 2005 Specification for Structural Steel Buildings

BS 8100: 1986 Lattice Towers And Mast Part 1: Code Of Practice For Loading

BS 8100: 1999 Lattice Towers And Mast Part 3: Code Of Practice For Strength Assessment

AS 3995-1994 Design of Steel Lattice Towers and Masts

Design Wind Speed

Basic Wind Speed	Typically 40-45m/s, Maximum

85m/s, (3-sec gust speeds)

Operational Wind Speed Typically 70% of the basic

wind speed

Height Typically 25-35m, Maximum 50m

Design Parameters (ANSI/TIA 222-G)

Structure ClassTypically 2, can be 1-4Exposure CategoryTypically C, can be A-DTopographic CategoryTypically 1, can be 1-4

Load Combinations

Strength Limit State 1. 1.2 DL + 1.6 VB

2. 0.9 DL + 1.6 VB

Service Limit State 1. 1.0 DL + 1.0 VO

Ancillary Loads

Antenna Typically 10m² over top 10m, up to 25m²

Cable and Ladder 0.3m²/m

Factor of Safety

Factor of Safety on overturning is 1.2 as standard, differing parameters can be considered upon request.

Site Preparation

Levelling system to accommodate 3° of site slope included. Soil bearing support for ≥50kPa.

Equipment Platform

Equipment platform included with > 50m² of usable space able to carry in excess of 4 tonnes of equipment load.



INTEGRATED TOWER SITE SPECIFICATIONS

Standard antenna mounts and work platform enables easy access to the antennas and feeders for installation and maintenance.

Integrated tower with:

- a. internal climbing ladder
- b. feeder support brackets
- c. rest platform(s)
- d. working platform
- e. holding down bolts
- f. lockable anti-climb protection
- g. GSM/3G/panel antenna mounts
- h. microwave antenna mounts

Surface standing composite foundation with:

- a. galvanized steel support grillage
- b. reinforced concrete ballast blocks
- c. levelling system to accommodate 3° of site slope
- d. soil bearing support for ≥ 50kPa
- e. sacrificial earthing connection

The grillage foundation sits on top of the ground, eliminating the requirement to dig and lay wet cement. This also means that in many jurisdictions planning permission is not required to build the ITS site.

BTS/Genset/Equipment platform with:

- a. more than 50m² of usable space
- b. clip-in equipment supports
- c. clip-in feeder cable gantry
- d. clip-in power cable gantry

Antenna loading up to 25m²
Wind speed up to 85m/s
Height up to 50M

The ITS kits come complete with palisade fence with a double access gate and foundation free support. A razor wire top can be specified.

 Solar panels, equipment shelters or canopies can be installed on ITS, if required.

