

iTOWERS Designer is a result of focused research & development efforts by a team of structural engineers over a period of 20 years and validated in a live industry environment. It's a comprehensive software for analysis and design of Power Transmission Line Towers, Telecommunications Towers and Switchyard Structures.

*Analysis and Design of Transmission Line Towers
using iTOWERS Designer TL Software*

With the most advanced features, iTOWERS Designer TL cuts down the time for the design of TL towers. The powerful tools of the software enable the designer to handle analysis and design of even the most complex tower geometries in a very less time. Read more>>

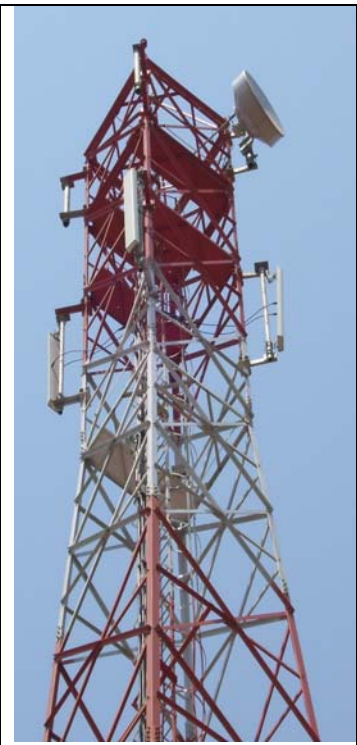
(for Read more hyper link please Refer Page 3 below)



*Analysis and Design of Telecom Towers
using iTOWERS Designer MW Software*

iTOWERS Designer MW software cuts down the time involved in the analysis and design of the communication towers. The powerful user-friendly tools and the advanced features like automatic load calculations of the linear and discrete ancillaries reduces the possibility of human errors and gives a safe design in a very short time. Read more>>

(for Read more hyper link please Refer Page 4 below)



Analysis and Design of Switchyard Structures using iSwitchyard Software

An advanced engineering tool, conceived to assist engineers in performing analysis, design and optimization studies of switchyard structures. The Graphical user interface(GUI) of the package renders the program efficient and very user-friendly.
..... Read more>>

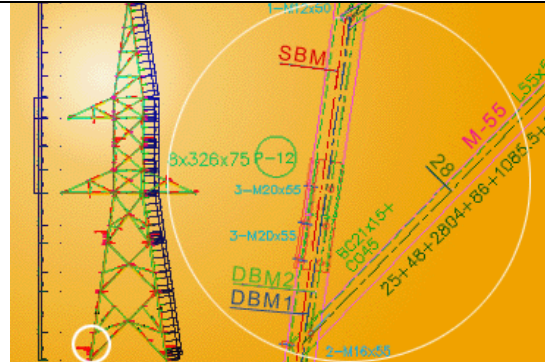
(for Read more hyper link please Refer Page 5 below)



Detailing of Towers using iTOWERS Detailer Software

Is a revolutionary product developed to automatically generate Assembly and Shop Floor drawings. Designed to crash the bottlenecks,. It effectively combines the functions of a designer and a draftsman into one.
. Read more>>

(for Read more hyper link please Refer Page 6 below)



iTOWERS Designer Software for Transmission Line Towers

Unique Features

- Determination of sag-tension values for conductors and groundwire for different environmental conditions.
- 3D Geometry generation with redundants - to study the realistic behavior of the tower thus achieving safe designs
- Tower template - A powerful tool to generate 3D geometry with redundants optionally for the vertical & horizontal configuration.
- Tower combinations - Analyze multiple tower combinations in single file
- Automatic drawings and report generator
- EL generator - Automatic effective length calculations for all tower members and for all tower combinations.
- Easy tools for automatic generation of body wind load calculations.
- LC generator - Loads due to conductor & ground-wire, which no other software in the world can offer.
- Automatic determination of wire loads(conductor / ground wire as per IS:802:1995 and IEC-826)
- Tower is idealized as a 3D-Space Truss with 3 degrees of freedom.
- Design as per the following national and international codes,

IS: 802 – 1992	IS: 802 – 1977	IS: 800-1984
IS: 806-1968	ASCE 10 – 97	AISC
BS: 8100	BS: 5950	Egypt
ISO 10721-1:1997(E)	ENV 1993-3-1:1997	

- Online Interactive Design Calculator with a link to complete design of the tower in iTOWERSDesigner

Unique capabilities

- Capability to analyze and calculate new optimized tower designs
- Design checking of existing transmission line towers,
- Maintenance, strengthening and up-gradation of existing towers to accommodate new conductors / communication cables
- Modification of existing lines to provide new strength under new conductor/ groundwire properties, new codes and new wind pressures
- Optimization across various patterns, basic dimensions, steel type, shape of the section, cost of the steel is easily achieved.

iTOWERS Designer Software for Telecommunication Towers

Unique Features

- 3D Geometry generation with redundants - to study the realistic behavior of the tower thus achieving safe designs
- Tower template - A powerful tool to generate 3D geometry with redundants optionally for the square & Triangular base configuration.
- Tower truncations - Analyze multiple tower truncations in single file
- Automatic drawings and report generator
- EL generator - Automatic effective length calculations for all tower members and for all tower truncations.
- Easy tools for automatic generation of body wind load calculations.
- Automatic determination of loads due to antenna and other accessories(Ladder, cables, platforms & lightning rods)(As per IS:875 (Part 3)-1987 and TIA/EIA-222F
- Tower is idealized as a 3D-Space Truss with 3 degrees of freedom.
- Design as per the following national and international codes

IS: 802 – 1992	IS: 802 – 1977	IS: 800-1984
IS: 806-1968	ASCE 10 – 97	AISC
BS: 8100	BS: 5950	Egypt
ISO 10721-1:1997(E)	ENV 1993-3-1:1997	TIA/EIA 222-F

- Online Interactive Design Calculator with a link to complete design of the tower in iTOWERSDesigner

Unique capabilities

- Capability to analyze and calculate new optimized tower designs
- Design checking of existing Telecommunication towers,
- Maintenance, strengthening and up-gradation of existing towers to accommodate new antennas
- Modification of existing lines to provide new strength under new wind pressures and new codes.
- Optimization across various patterns, basic dimensions, steel type, shape of the section, cost of the steel is easily achieved.

iSwitchyard Software for Switchyard Structures

Unique Features

- 3D Geometry generation with redundants - to study the realistic behavior of the tower and girder in the complete Yard
- Tower/ Girder Template - A powerful tool to generate 3D Geometry with redundants optionally for multiple towers and girders.
- Designed to accommodate any configuration with multi-level girders and towers.
- Automatic drawings and report generator
- EL generator - Automatic effective length calculations for all tower and girders members.
- Easy tools for automatic generation of body wind load calculations on towers, girder and overall yard.
- Yard Assembly - generating an integrated structure of the switchyard consisting of the towers and the girders
- Automatic loads calculation on ground wire / conductors at various levels of the yards.
- Yard is idealized as a 3D-Space Truss with 3 degrees of freedom for normal and short circuit loads.
- Design as per the following national and international codes,

IS: 802 – 1992	IS: 802 – 1977	IS: 800-1984
IS: 806-1968	ASCE 10 – 97	AISC
BS: 8100	BS: 5950	Egypt
ISO 10721-1:1997(E)	ENV 1993-3-1:1997	

- Critical maximum forces across all similar towers and girder are calculated, thereby resulting in the critical and precise design of each unit.
- Online Interactive Design Calculator with a link to complete design of the tower and girder in the iSWITCHYARD
- Optimization available for each component i.e., tower or girder
- Optimization across various patterns, basic dimensions, steel type, shape of the section, cost of the steel is easily achieved.

iTowers Detailer for generation of Assembly Drawings for Towers

Unique Features

- Detailing of a 132Kv Tower can now be achieved within a few hours.
- 3-Dimensional Tower Model reflecting Back-marks, Butt and Lap Joints, actual Tower Member sizes.
- Surface view - a complete breakdown of the surfaces used in the towers
- Drawing Editor- allows us to store and displays several parts of the tower simultaneously for better viewing.
- Bill of Materials - a complete list of all items, their weights along with the section sizes and which can be exported to the standard applications such as Microsoft® Excel®, Microsoft® Access® and so on.
- Exporting Assembly Drawings to popular drawing packages such as AutoCAD and Micro Station.
- Interactive Shop Drawings browser - provided by which the user can browse through all the shop drawings of the existing members and plates.
- Material Optimizer - a complete picture of the members used on the tower, their weight, prices and the percentage of material wastage.

iTOWERS Designer software Licenced Customers

International



POWERLINK, Queensland,
Australia.



ABB T&D SpA.,
Milano, Italy.



Hyundai Engg. & Const. Co.
Ltd., Seoul, Korea.



COMEMSA, Mexico.



EUCOMSA, Sevilla, Spain.



AL BABBAIN, Riyadh, Saudi
Arabia.



NCC – Khamis, KSA



ZAMIL STEELS, Dammam,
Saudi Arabia.



ARABIAN INTL. CO, Jeddah,
Saudi Arabia.



METALCO, Cairo, Egypt.



SAUDI ELECTRIC CO. (CRB),
Riyadh.

- AL BABBAIN INDUSTRIES, Cairo, Egypt.
- AL SALAM INDUSTRIAL AND TRADING Est. Jeddah.
-
- Bhutan power Corporation Limited, Thimpu, Bhutan

National



ICOMM, Hyderabad,
India.



Aster Teleservices,
Hyderabad, India



BAJAJ ELECTRICALS Ltd.,
Mumbai, India



IDEA Cellular India



W B State Electricity Board,
Kolkatta, India.



KEC International Ltd., Mumbai
India.



U P State Electricity Board,
Lucknow, India.



TATA International., Kolkatta,
India.
TATA Projects Ltd., Hyd, India.



Power Grid Corporation of India
Ltd., Delhi, India.



Central Electricity Authority,
Delhi, India.



A P State Electricity Board,
Hyderabad, India.



Rajasthan State Electricity
Board, Jaipur, India.



Associated Transrail
Structures Ltd., Mumbai,
India.



Kalpataru Power Transmission
Limited, Gandhinagar, India.



Jyoti Structures Ltd., Mumbai,
India.

- Hyundai Unitech Electrical Transmission Ltd., New Delhi, India.
- Hirakud Industrial Works Ltd., Bhubaneswar, India.
- Man Structural Ltd., Jaipur, India.
- KEC International Ltd., Nagpur India.
- Kalpataru Power Transmission Ltd. Mumbai, India.
- Urja Engineers Limited, Baroda, India

Engineering Services Customers

Telecom

Bharati Infratel Limited

Reliance communications

Indus Towers Limited



Tata Tele Services Ltd,
India .

bharti

Bharati Televentures Ltd.
(Airtel), India



Idea Cellular,
India

Hutch

Hutch, India



Lucent Technologies, Saudi
Arabia .



NASCO, Riyadh,
Saudi Arabia

NOKIA
Connecting People

Nokia, India

SIEMENS

Siemens, India

ERICSSON

Ericsson, India .

- Essar Sterling, India
- Tata Cellular Ltd., India
- Birla Tata AT&T, India
- Bajaj Electricals, India
- RPG, India
- Unimekar - Malaysia
- Electro Industries - KSA
- IMIL, India

- Reliance Infocomm Ltd., India
- Reliance Telecom Ltd., India
- Al-Babtain - KSA, Saudi Arabia
- Al-Babtain - Egypt
- Quipo, India
- GTL, India

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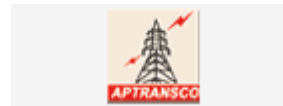
Power Transmission



Power Grid Corporation of India Ltd., Delhi, India



U P State Electricity Board, Lucknow, India



A P State Electricity Board, Hyderabad, India.



Water & Electricity Dept., Abudhabi



National Hydroelectric Power Corporation, India



UAE Electricity Board, Dubai



National Power Corporation, Philippines



National Thermal Power Corporation, Delhi, India



Tamilnadu State Electricity Board, India .



Electricity of Vietnam



W B State Electricity Board, Kolkatta, India.



Rajasthan State Electricity Board, Jaipur, India.

- Egypt Electricity Authority, Egypt
- Iran Electric Organization, Iran
- Tehran Regional Electric Company, Iran
- Zimbabwe State Electricity Authority, Zimbabwe
- Ceylon Electricity Board, Srilanka

- UAE Electricity Board, UAE
- Sultanate of Oman-Ministry of Electricity of water, Oman
- Karnataka Electricity Board, Bangalore, India
- Grid Corporation of Orissa Ltd. (GRIDCO), Orissa, India
- J&K Electricity Board, India
- Orissa State Electricity Board, Bhubaneswar, India
- Bihar State Hydro Electric Power Corp. Ltd, India
- Reliance Energy Limited, India