RFQ / TENDER

Tender No: AGG150

freight rail

Vendor No: 11001386

BOARD LIST
BOARD LIST
TRANSNET FREIGHT RAIL
PROCUREMENT DEPARTMENT
2000

Purchaser : Antony Goldstone
Telephone : 033 897 2190
Fax Number: 086 522 6399

Please quote reference:
E60/6000611767

Deliver to:
The Manager
TRANSNET FREIGHT RAIL
INFRA TELECOMMS - PROJECTS
MR SIHLE MKHIZE (083-222-6334)
4000 1 RF CLARKE DRIVE,BAYHEAD,DURB

Closing Date :13.03.2015
Validity Date :13.04.2015
RFQ No :6000611767

Ihr Zeichen DBN/MW15

1. RETURN OF QUOTATION/S:

SUPPLY & DELIVERY OF EXFO TK-200 OTDR (FTB-200v2) .
TELECOMMS OPTICAL TIME DOMAIN REFLECTOMETER

PeDB REF: CRAC/DNR/16704. TFR PROJ:MW15
FOR TFR INFRA, TECHNICAL EXECUTION, DURBAN

QUOTATIONS MAYBE EMAILED: tfrtendersdurban@transnet.net   OR FAXED TO 011-584-1364

1.1 QUOTATION/S MUST BE SUBMITTED PUNCTUALLY AT 10:00 ON OR BEFORE CLOSING DATE AND LATE QUOTATIONS
WILL NOT BE CONSIDERED.

1.2 IF POSTED:
        100 EEL ROAD
        BAYHEAD
        DURBAN
        4000
1.3 ,IF DELIVERED BY HAND:
        TRANSNET FREIGHT RAIL-SUPPLY CHAIN SERVICES
        100 EEL ROAD
        BAYHEAD
        DURBAN, 4000

2. CONDITIONS:
2.2 ANY PURCHASE ORDER PLACED AS A RESULT OF YOUR QUOTATION WILL BE SUBJECT TO THE STANDARD TERMS
AND   CONDITIONS OF CONTRACT, FORM U87, (LATEST), GENERAL TENDER CONDITIONS, FORM CSS5 (LATEST) AND

DATE: ....   SIGNATURE OF TENDERER(S): ....
                                        CONTACT PERSON: ....   TEL No: ....

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CONDITIONS MENTIONED HEREIN.

2.3 TENDERERS MAY OFFER AN EARLIER VALIDITY DATE, BUT THEIR QUOTATION MAY, IN THAT EVENT, BE DISREGARDED FOR THIS REASON.

2.4 TENDERERS ARE REQUIRED TO OFFER ONLY FIRM PRICES. PRICES SUBJECT TO REVIEW IN TERMS OF CLAUSE 32 OF FORM US7 WILL ONLY BE CONSIDERED SHOULD THE DELIVERY PERIOD REQUIRED EXCEED 6 MONTHS.

2.5 BEST DELIVERY TIME MUST BE OFFERED.

2.6 DISCOUNT (TRADE DISCOUNT) CASH DISCOUNT (CONDITONAL DISCOUNT) VALUE VALUE ADDED TAX (VAT) MUST BE SHOWN SEPARATELY.

2.7 TRANSNET RESERVES THE RIGHT TO NEGOTIATE PRICES AND COMMERCIAL ASPECTS AFTER THE CLOSING DATE OF THE QUOTATION.

DATE: ....   SIGNATURE OF TENDERER(S): ....

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2.8 DIRECT DELIVERY INTIMATES DELIVERY BEING EFFECTED INTO THE WAREHOUSE OR THE ACTUAL POINT OF SUPPLY AND SHOULD THEREFORE INCLUDE ANY TRANSPORTATION MODE DEEMED NECESSARY IN EXECUTING THIS METHOD OF DELIVERY BASIS IN ORDER TO MEET THE REQUIRED DELIVERY DATE.

TAX CLEARANCE CERTIFICATES:

The Regulations in terms of the Public Finance Management Act, 1999: Framework for Supply Chain Management as published in Government Gazette No. 25767 dated 5 December 2003, Clause 9 (1) (d), stipulates that the accounting officer or accounting authority of an institution to which these regulations apply must reject any bid from a supplier who fails to provide written proof from the South African Revenue that the supplier either has no outstanding tax obligations or has made arrangements to meet outstanding tax obligations.

Tenderers will be disqualified if a valid tax clearance certificate or written proof from the South African Revenue Service that supplier has made arrangements to meet outstanding tax obligations is not submitted with the tender.

COMPANY DETAILS:
NAME OF COMPANY: _____
CONTACT PERSON: _____
TEL. NO. _____ **FAX NO:** _____
REG. NO. _____

BROAD BASED BLACK ECONOMIC EMPOWERMENT (BBBEE)

Transnet fully endorses and supports the Government's Broad-based Black Economic Empowerment Programme and it is strongly of the opinion that all South African Business Enterprises have an equal obligation to redress the imbalances of the past. Transnet will therefore prefer to do business with local business enterprises who share these same values. Transnet will endeavour to do business with local business enterprises that possess a BBBEE "recognition level" of at least a level 5. Transnet urges Tenderers (large enterprises and QSE's - see below) to have themselves accredited by any one of the various Accreditation Agencies available, who do their BBBEE ratings in accordance with the latest Codes (i.e. those promulgated on 9 February 2007) and whose names appear on the present ABVA (Association of BEE Verification Agencies) - "List of Full Members" as displayed on the ABVA website (www.abva.co.za).

Although no agencies have, as yet, been accredited by SANAS (SA National Accreditation System), Transnet will, in the interim, accept rating certificates of tenderers who have been verified by any of the listed agencies.

Enterprises will be rated by such agency based on the following:
1. Large Enterprises (i.e. annual turnover > R35million:
"   Rating level based on all seven elements of the BBBEE scorecard.

2. Qualifying Small Enterprises (QSE) (i.e. annual turnover > R5million but < R35million:
"   Rating based on any four elements of the BBBEE scorecard.
NB:
3. Emerging Micro Enterprises - (EME) (i.e. annual turnover < R5m) are exempted from being rated/verified:
"   Automatic rating of Level 4 BBBEE irrespective of race of ownership, i.e. 100% BBBEE recognition
"   Black ownership > 50% or Black Women ownership > 30% automatically qualifies as Level 3 BBBEE, i.e. 110% BBBEE recognition
"   EME's should provide certified documentary proof of annual turnover (i.e. audited financials) plus proof of Black ownership if Black ownership > 50% or Black Women ownership > 30% from the EME's Auditor/Accounting Officer.

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4. In addition to the above, Tenderers who wish to enter into a Joint Venture or subcontract portions of the contract to BBBEE companies, must state in their tenders the percentage of the total contract value that will be allocated to such BBBEE companies, should they be successful in being awarded any business. A rating certificate in respect of such BBBEE JV partners and / or sub-contractor/s, as well as a breakdown of the distribution of the aforementioned percentage must also be furnished

In view of the high emphasis which Transnet places on Broad-based Black Economic Empowerment, Transnet will allow certain preference points for BBBEE in the evaluation of all responses. Depending upon the value of the ensuing business award (i.e. below or in excess of R2m), the 80/20 or 90/10 point preference systems will be utilized where BBBEE will count out of 20 or 10 respectively in the evaluation process.

EACH RESPONDENT IS REQUIRED TO FURNISH PROOF OF THE ABOVE TO TRANSNET. FAILURE TO DO SO WILL RESULT IN A SCORE OF ZERO BEING ALLOCATED FOR BBBEE.

Turnover: Kindly indicate your company's annual turnover for the past year R

"   If annual turnover <R5m, please attach certified confirmation from your Auditor/Accounting Officer
"   If annual turnover >R5m please attach original or certified copy of accreditation certificate and detailed scorecard by an ABVA accreditation agency (registered as a "Full Member")

PAYMENT TERMS

The following payment terms will apply as from 1 October 2008.
"   **All suppliers will be paid 30 days from receipt of month end statement, i.e. payment term F055.**

CONDITIONS:
This quotation is subject to the provisions of the Standard Terms and Conditions of Contract, Form US7, (Latest) and the General Tender Conditions, Form CSS5 (Latest) and any other standard or special conditions mentioned and/or embodied in the quotation request.

SCHEDULE OF REQUIREMENTS
PRICES TENDERED ARE TO BE "DIRECT" AND EXCLUDE VAT.

IN THIS REGARD THE TENDERER'S ATTENTION IS DIRECTED TO PARAGRAPH 16 OF FORM CSS5 (LATEST).

DATE: ....   SIGNATURE OF TENDERER(S): ....

RFQ / TENDER

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TRANSNET INSISTS ON HONESTY AND INTEGRITY BEYOND REPROACH AT ALL TIMES AND WILL NOT TOLERATE ANY FORM OF IMPROPER INFLUENCING, BRIBERY, CORRUPTION, FRAUD, OR ANY OTHER UNETHICAL CONDUCT ON THE PART OF BIDDERS/ TRANSNET EMPLOYEES. IF, IN THE OPINION OF TRANSNET'S CHIEF OPERATING OFFICER, A TENDERER / CONTRACTOR / SUPPLIER HAS OR HAS CAUSED TO BE PROMISED, OFFERED OR GIVEN TO ANY TRANSNET EMPLOYEE, ANY BRIBE, COMMISSION, GIFT, LOAN, ADVANTAGE OR OTHER COSIDERATION, TRANSNET SHALL BE ENTITLED TO REVOKE THE TENDER / CONTRACT BY FOLLOWING ITS INTERNAL POLICIES THAT GOVERN THE ECLUSION PROCESS. IN SUCH AN EVENT TRANSNET WILL BE ENTITLED TO PLACE ANY TENDERER / CONTRACTOR / SUPPLIER WHO HAS CONTRAVENED THE PROVISIONS OF TRANSNET'S BUSINESS ETHICS ON ITS LIST OF EXCLUDED TENDERERS. THIS LIST WILL ALSO BE DISTRIBUTED TO ALL OTHER STATE OWNED ENTERPRISES AND GOVERNMENT DEPARTMENTS.

TRANSNET INVITES ITS VALUED SUPPLIERS TO REPORT ANY ALLEGATIONS OF FRAUDCORRUPTION OR OTHER UNETHICAL ACTIVITIES TO TRANSNET TIP-OFFS ANONYMOUS,AT ANY OF THE FOLLOWING ADDRESSES / CONTACT NUMBERS:-

TOLL-FREE ANONYMOUS HOTLINE - 0800 003 056
EMAIL - Transnet@tip-offs.com
FAX NUMBER - 0800 007 788
FREEPOST DN 298, UMHLANGA ROCKS, 4320

CONFIDENTIALITY IS GUARANTEED

Item	Qty	Material	Description
00010	1		SUPPLY EXFO TK-200(FTB-200v2) FIBRE TEST

R....................
Each

Delivery Date: 30.04.2015

FULL DETAILS OF DESCRIPTION
SUPPLY & DELIVERY OF EXFO TK 200 (FTB-200v2) OTDR (OPTICAL FIBRE TIME DOMAIN REFLECTOMETER) 1 EACH REQUIRED, FOR TFR, INFRA, TECHNICAL EXECUTION, DURBAN.

DATE: ....   SIGNATURE OF TENDERER(S): ....

FTB-200 Compact Platform

THE INTELLIGENT PLATFORM BUILT FOR THE SUPERTECH

PART OF THE

EXFO|FTB Ecosystem

EXFO Connect
Compatible

2014

The FTB-200 delivers the best performance on the market for optical, Ethernet and multiservice testing.

KEY FEATURES

Connects anywhere: USB, 3G, Wi-Fi, VPN and Bluetooth

Loaded with utilities: all the tools required to maximize field testing, plus third-party applications

Like a PC: Intel processor with Windows Embedded Standard operating system

EXFO Connect-compatible: automated asset management; data goes through the cloud and into a dynamic database

GPS capabilities: accurate coordinates under the same conditions as a regular satellite GPS receiver

COMPLEMENTARY PRODUCT

Fiber Inspection Probe
FIP-400B

EXFO

THE POWER YOU NEED, NO MATTER THE APPLICATION

The FTB-200 delivers the processing power of a high-end platform for a variety of advanced applications—all in a conveniently sized go-anywhere field-testing tool.

CWDM

CWDM Turn-Up Testing
Integrate two metro/CWDM OTDRs to test through CWDM-based mux/demux at ITU-recommended wavelengths.

ROADM and PTN

40G and ROADM Commissioning
House an OSA into a compact portable solution for fast and accurate DWDM commissioning and high-speed networking—up to 40 Gbit/s.

Multiservice

Multiservice Testing
Simultaneously run a 10 gigabit next-generation SONET/SDH analyzer, as well as 1 gigabit and 10 gigabit Ethernet analyzers, delivering IPTV test capabilities and TCP throughput assessment.

Fiber

Fiber Characterization and Construction
Combine connector inspection, OLTS, OTDR, PMD and CD testing in a single solution, or incorporate an OTDR with a multitest module, for in-depth link characterization.

Service Activation

Business Service Activation
Join an FTTx PON/MDU OTDR featuring a dynamic range of up to 39 dB with a 1/10 gigabit Ethernet testing module, to simplify and speed up the deployment of Ethernet services.

Carrier Ethernet

Carrier Ethernet Testing from 10 Mbit/s to 10 Gbit/s
Benefit from a comprehensive suite of Ethernet testing capabilities, including EtherSAM (ITU-T Y.1564), for turning up and troubleshooting mobile backhaul, commercial and wholesale services.

◄ EtherSAM

EXFO

ONE PLATFORM, OVER 30 MODULES

Optimized for all phases of the network lifecycle, the FTB-200 houses any of EXFO's FTB one- or two-slot modules to meet your evolving needs. Configure your platform by combining optical, transport and datacom modules to cover a wide range of applications. Offering power, speed and modularity in a compact format, the FTB-200 is the perfect tool for the field.

Optical Test Modules

Discover the industry's most renowned line of OTDRs, the most advanced dispersion analyzers and optical spectrum analyzers.

OPTICAL TEST MODULES	
OTDR	FTB-7xxx (D-E Series)
MultiTest Module	FTB-3930
Optical Spectrum Analyzers	FTB-5240S
	FTB-5240S-P
Single-Ended Dispersion Analyzer	FTB-5700

Transport and Datacom Test Modules

Choose from the most compact and powerful SONET/SDH, OTN, Fibre Channel and Ethernet analyzers—the new standards in next-generation network testing.

TRANSPORT AND DATACOM TEST MODULES	
DSn/PDH and SONET/SDH Electrical Test Module	FTB-0105 Transport Blazer
SONET/SDH Test Module	FTB-8115 Transport Blazer
Next-Generation SONET/SDH Test Modules	FTB-8120/8130 Transport Blazer
Multiservice Test Modules	FTB-8120NGE/8130NGE Power Blazer
Ethernet Test Modules	FTB-0510B Packet Blazer
10 Gigabit Ethernet Test Module	FTB-8510G Packet Blazer
Fibre Channel and Ethernet Test Modules	FTB-8525/8535 Packet Blazer

EXFO

DELIVERING UNIQUE PERFORMANCE

Providing the same compatibility as its predecessor, the FTB-200 platform now leverages a powerful Intel ATOM processor to deliver unmatched speed and performance for the most demanding test applications.

OSA

IN-BAND 64 ACQUISITIONS

10x faster FTB-200

Baseline

RE-ANALYSIS

14x faster FTB-200

Baseline

TRACE LOADING

20x faster FTB-200

Baseline

SPEED

OTDR

RE-ANALYSIS

8x faster FTB-200

Baseline

REAL-TIME ACQUISITION

44 % faster FTB-200

Baseline

SPEED

T&D

AVERAGE EXECUTION

3x faster FTB-200

Baseline

RESULT PROCESSING

10x faster FTB-200

Baseline

SPEED

"PREVIEW COPY ONLY"

EXFO

FIBER CONNECTOR INSPECTION AND CERTIFICATION · THE ESSENTIAL FIRST STEP

Taking the time to properly inspect a fiber-optic cable can prevent a slew of problems down the line—saving you time, money and headaches.

FIP-430B | The First Fully Automated Fiber Inspection Probe for the Field

Housing a unique automatic focus adjustment system, the FIP-430B automates each operation in the connector endface inspection sequence, transforming this critical process into one quick and easy step, which can be performed by technicians of all skill levels.

100% Automated [a] | **1-step** process [a] | **57%** shorter test time [b]

3 Models to fit your budget:

FEATURES	Basic FIP-410B	Semi-Automated FIP-420B	Fully-Automated FIP-430B
Three magnification levels	✓	✓	✓
Image capture	✓	✓	✓
Five-megapixel CMOS capturing device	✓	✓	✓
Automatic fiber image-centering function	✗	✓	✓
Automatic focus function	✗	✗	✓
On-board pass/fail analysis	✗	✓	✓
Pass/fail LED indicator	✗	✓	✓

ConnectorMax2

Read the FIP-400B specification sheet or visit www.EXFO.com/keepthefocus for more information.

Notes

a. Model FIP-430B only

b. Data sourced from EXFO's case study, with calculation based on typical analysis time.

EXFO

SOFTWARE TEST TOOLS

EXpert TEST TOOLS

EXpert VoIP TEST TOOLS

EXpert VoIP generates a voice-over-IP call directly from the test platform to validate performance during service turn-up and troubleshooting.

> Supports a wide range of signaling protocols, including SIP, SCCP, H.248/Megaco and H.323
> Supports MOS and R-factor quality metrics
> Simplifies testing with configurable pass/fail thresholds and RTP metrics

EXpert VoIP TEST TOOLS

EXpert IP integrates six commonly used datacom test tools into one platform-based application to ensure that field technicians are prepared for a wide range of testing needs.

> Rapidly performs debugging sequences with VLAN scan and LAN discovery
> Validates end-to-end ping and traceroute
> Verifies FTP performance and HTTP availability

EXpert IPTV TEST TOOLS

This powerful IPTV quality assessment solution enables set-top-box emulation and passive monitoring of IPTV streams, allowing quick and easy pass/fail verification of IPTV installations.

> Real-time video preview
> Analyzes up to 10 video streams
> Comprehensive QoS and QoE metrics including MOS score

SOFTWARE APPLICATIONS

ConnectorMax2

Providing lightning-fast results in the first step of fiber-link testing, ConnectorMax2 is a powerful, platform-based, automated inspection application; it delivers quick pass/fail assessment of connector endfaces and is specifically designed to save both time and money in the field.

THIRD-PARTY TEST TOOLS

Wireshark	This live-network packet-capture utility makes it possible to look "inside" the packets and obtain data such as transmission time, source, destination, protocol type, etc. Users can then diagnose a problem or root out suspicious behavior. Wireshark is a standard utility on all FTB-200 platforms.
JPerf	This TCP performance testing tool can create TCP and UDP data streams, which measure the throughput of a network that is carrying them. Thanks to various user-definable parameters, technicians can rely on JPerf to optimize or tune a network under test.
Network Stumbler	Network Stumbler verifies wireless network configurations, enabling field technicians to identify areas that have poor coverage or wireless interference, and helping them to aim antennas for full effect and find unauthorized access points.

SOFTWARE UTILITIES

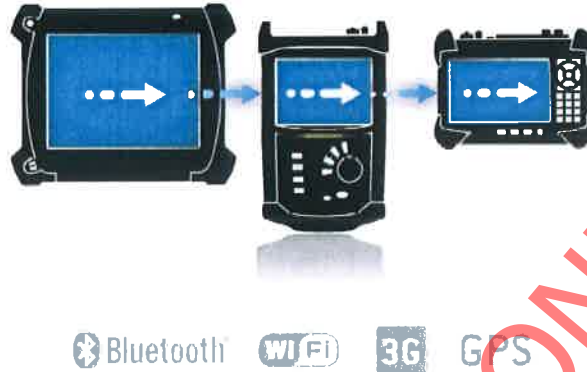|	
Update Manager	Ensure that your entire fleet of platforms is up-to-date with the latest software, and easily manage your maintenance contracts.
VNC configuration	The Virtual Network Computing utility allows technicians to easily communicate settings to remote colleagues.
Microsoft Internet Explorer	Access the Web directly from your platform interface.
Bluetooth file-sharing	Share files from your FTB-200 to any Bluetooth-enabled device.
Wi-Fi connection	Display available Wi-Fi connections and save your default settings.

EXFO

CONNECTED ANYWHERE, ANYTIME

The value of connectivity resides in the ability to connect your platform anywhere, at any time. That's why we have equipped our platforms with the technology to be as flexible as possible. Whether to transfer data to the cloud, to a device or to acquire a platform's location via GPS, you have what it takes.

Bluetooth   **WIFI**   **3G**   **GPS**

🔒 Secure VPN communications

We have brought VPN capabilities to our platforms to provide a secured connection for those who need it. And, we cover 99% of the world's VPN connection types, thanks to Cisco, Juniper and Checkpoints* technologies. Secure communications are now within your reach.[a,b]

3G 3G mobility

Our 3G universal USB angle is ready to house most service provider SIM cards. In fact, it is compatible with over 80% of the worldwide 3G coverage offered by all the main 3G service providers using unlocked SIM cards.[b,c]

🖥 Remote control

Use remote assistance to troubleshoot units in the field, trigger tests remotely or help a technician with a problem. Working without it is hard to imagine.

💬 Instant messaging

Since our platforms are Windows-based, they are just like a PC. You can install chat tools to quickly communicate with your team.

Notes
a. Please refer to the User Guide to learn how to set up your VPN connection, as required by your IT department.
b. Current FTB platform must be updated to the latest version supporting these options.
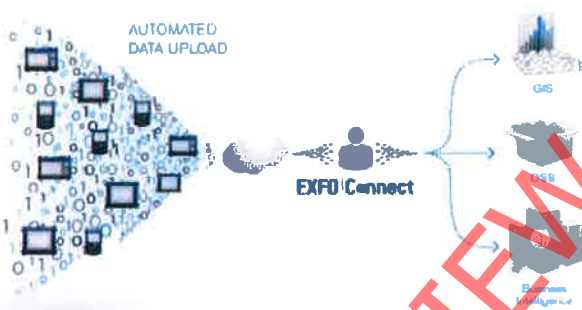c. Please refer to the User Guide when installing this device on your compatible FTB platform.

EXFO

EXFO | Connect

EXFO CONNECT MAKES YOUR DATA MEAN BUSINESS

EXFO Connect lets you store and push equipment and test data automatically to our cloud-based servers, allowing you to streamline test operations, from build-out to maintenance.

Centralize and automate inventory management to provide global visibility

Test Equipment Manager, a component of EXFO Connect, deals with the constant demands of software updates, keeping track of the equipment and ensuring that field technicians involved in network construction, maintenance or troubleshooting are properly equipped. The best part? It's all automated.

Store and consolidate test data across the entire company

Test Data Manager, another component of EXFO Connect, allows managers to make the most of their test investment. It extracts the full value out of the generated test data to help you optimize network efficiency, all through a highly automated, secure and centralized environment.

Create and customize reports from collected data

EXFO Connect tracks and updates your test gear, giving you fingertip access to all the data and allowing for quick correlation and tailored reporting for any member of the organization.

EXFO

UPDATE MANAGER

Stay current with the FTB-1 Update Manager, which enables you to easily manage the applications developed for your test solution. Thanks to EXFO's feature enhancement program, it has never been easier to benefit from our latest innovation. Based on customer feedback, acute market trend analysis and compliance with the latest standards, EXFO is committed to ensuring that your product is at its best.

DESIGNED FOR EFFICIENCY

1. LED indicators
2. Switch application and keyboard
3. Knob
4. Power meter and VFL
5. Battery
6. Stylus
7. Two slots to house modules
8. USB 2.0 port
9. 1 GigE port
10. FIP port
11. Head set
12. AC adapter
13. Two extra USB 2.0 ports

EXFO

SPECIFICATIONS [a]

Display	Touchscreen, color, 640 x 480 TFT 163 mm (6.5 in)
Interfaces	Two USB 2.0 ports RJ-45 LAN 10/100/1000 Mbit/s Fiber Inspection probe connector port (video) Built-in Bluetooth and Wi-Fi (hardware option)
Storage	8 GB internal memory (flash)
Battery	Rechargeable lithium-ion batteries 8 hours of operation as per Telcordia (Bellcore) GR-196
Power supply	AC/DC adapter, input: ~ 100 – 240 V; 50/60 Hz; 1.6 VA max, output: — 24 V; 3.75 A
Computer	Intel ATOM processor Windows Embedded Standard

GENERAL SPECIFICATIONS

Temperature Operating Storage [b]	 –5 °C to 50 °C (23 °F to 122 °F) –40 °C to 70 °C (–40 °F to 158 °F)
Relative humidity	0 % to 95 % non-condensing
Size (H x W x D)	322 mm x 197 mm x 109 mm (12 11/16 in x 7 3/4 in x 4 5/16 in)
Weight [b]	2.1 kg (4.6 lb)
Vibration	<1.5 g at 10 Hz to 500 Hz (on three main axes)
Mechanical shock	<760 mm on six sides and eight main edges (compliant to GR-196-CORE)

ACCESSORIES

GP-10-070	Rigid FTB-200 carrying case	GP-2112	3G Universal USB Dongle
GP-10-072	Semi-rigid FTB-200 carrying case	GP-2113	GPS USB Dongle
GP-302	USB mouse	GP-2116	Single-slot storage module
GP-1002	Headset	GP-2137	USB-to-RS-232 converter
GP-1008	VFL adapter (2.5 mm to 1.25 mm)	GP-2138	DC car adapter/inverter
GP-2001	USB keyboard	GP-2144	USB 16G micro-drive
GP-2016	10 feet RJ-45 LAN cable	GP-2155	Carry-on size backpack [c]
GP-2028	Computer security cable kit		

PM-200 BUILT-IN POWER METER SPECIFICATIONS [d]

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Optional CWDM calibrated wavelengths (nm)	1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1383, 1625
Power range (dBm)	10 to –86 (InGaAs) 26 to –64 (GeX)
Uncertainty (%) [e]	±5 % ± 3 pW (InGaAs) ±5 % ± 0.4 nW (GeX)
Display resolution (dB)	
InGaAs	0.01 = max to –76 dBm 0.1 = –76 dBm to –86 dBm 1 = –86 dBm to min
GeX	0.01 = max to –54 dBm 0.1 = –54 dBm to –64 dBm 1 = –64 dBm to min
Automatic offset nulling range [f]	Max power to –63 dBm for InGaAs Max power to –40 dBm for GeX
Tone detection (Hz)	270/1000/2000

VISUAL FAULT LOCATOR (VFL) (OPTIONAL)

Laser, 650 nm ±10 nm

CW

Typical P_out in 62.5/125 µm: 3 dBm (2 mW)

LASER SAFETY

IEC 60825-1:1993+A2:2001
21 CFR 1040.10
LASER RADIATION
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
λ: 650 ±10 nm
P_max maximum < 5mW (into free space)

Notes

a. All specifications valid at 23 °C (73 °F).
b. Not including internal batteries. Battery maximum storage temperature: 60 °C (140 °F).
c. The selected model may change without notice.
d. At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery operated.
e. Up to 5 dBm.
f. For ±0.05 dB, from 18 °C to 28 °C.

EXFO

ORDERING INFORMATION

FTB-200-V2-XX-XX-XX-XX-XX-XX-XX

Model »
FTB-200-v2 = Compact modular platform

Display »
S1 = TFT active screen
S2 = Outdoor-enhanced screen

Wi-Fi/Bluetooth hardware option »
00 = Without RF components
RF = With RF capability (Wi-Fi and Bluetooth)

Power meter »
00 = Without power meter
VPM2X = VFL platform; PM; GeX detector
VPM3 = VFL; PM; InGaAs detector
VPM2X-CWDM = VFL platform; PM; GeX detector;
CWDM wavelengths calibrated
(from 1270 nm to 1610 nm)
VPM3-CWDM = VFL; PM; InGaAs detector; CWDM
wavelengths calibrated (from 1270 to
1610 nm)

Connector adapter »
FOA-12 = Biconic
FOA-14 = NEC D4: PC, SPC, UPC
FOA-16 = SMA/905, SMA-906
FOA-22 = FC/PC, FC/SPC, FC/UPC, FC/APC
FOA-28 = DIN 47256, DIN 47256/APC
FOA-32 = ST: ST/PC, ST/SPC, ST/UPC
FOA-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC)
FOA-78 = Radiall EC
FOA-96B = E-2000 E-2000/APC
FOA-98 = LC
FOA-99 = MU

Software option
00 = Without any software option
IP1 = Ping and traceroute functionalities
Expert-VoIP = RTP-based call testing software application, including packet loss
analysis, jitter measurement and complete voice quality metrics
Expert-IP = IP/Ethernet test suite, with tests including FTP performance, HTTP
availability, VLAN scan, LAN discovery, ping, traceroute, IP/Ethernet
port statistics (license for a single platform)
EXpert-IPTV = IPTV test suite
EXpert-TPP = Triple-play bundle for voice, video and data testing; includes
EXpert IP Test Tools, EXpert IPTV Test Tools, EXpert VoIP Test
Tools and EXpert SIP
EXpert-SIP = SIP call signaling support [b]
EXpert-SCCP = SCCP call signaling support [b]
EXpert-H.323 = H.323 call signaling support [b]
EXpert-H.248 = H.248/Megaco call signaling support [b]

Inspection probe base tips [c]
APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC
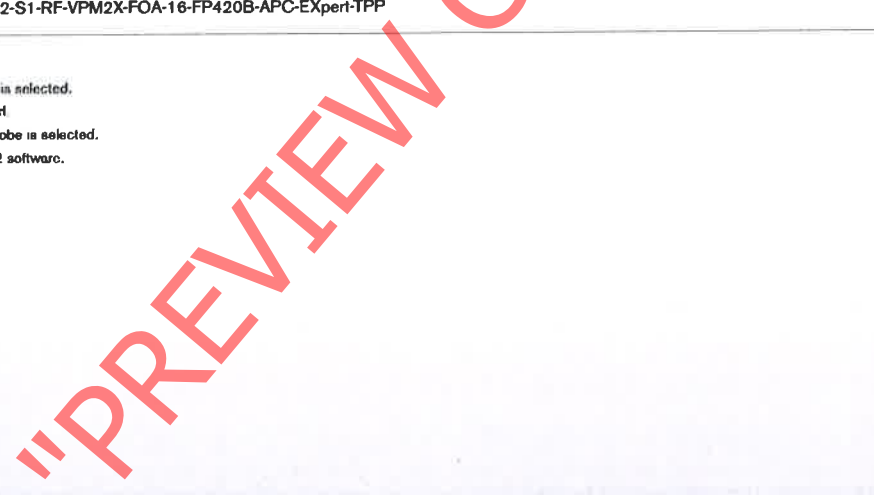UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

Inspection probe models
00 = Without Inspection Probe

FP410B = Digital video inspection probe [d]
Triple magnification

FP420B = Analysis digital video inspection probe [d]
Automated pass/fail analysis
Triple magnification
Autocentering

FP430B = Automated analysis digital video inspection probe [d]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering

Example: FTB-200-v2-S1-RF-VPM2X-FOA-16-FP420B-APC-EXpert-TPP

Notes

a. Available if power meter is selected.
b. If EXpert VoIP is selected.
c. Available if inspection probe is selected.
d. Includes ConnectorMax2 software.

EXFO