CX300 ComXpert

The CX300 ComXpert is an easy to use, complete communications test solution capable of testing everything from portable radios, to complex infrastructure, to broadband networks. The CX300 incorporates the most popular features from our industry leading test sets into a field portable package without sacrificing specs or performance.

At A Glance

- Dimensions: 12.2 in x 9.5 in x 6.1 in
  30.9 cm x 24.1 cm x 15.5 cm
- Display Size: 10 inches (25.4 cm), diagonal
- Weight: 15 lbs (6.8 kg), Base Unit
- Battery: Internal, 2.25+ Hours Operation
- Rugged: 30 G Shock
- Test Range: –140 dBm to +17 dBm
- Frequency Range: 100 kHz to 6 GHz
- Technologies: Analog, P25, P25 Phase 2, DMR

CX300 Top Detail

1. AF Input High	9. Trigger Input
2. AF Input Low	10. Trigger Output
3. AF Output	11. Reference Output
4. Microphone	12. Reference Input
5. RF Duplex	13. USB Port (2)
6. Stylus	14. GNSS Antenna
7. RF Input Port 2	15. Earphone Port
8. RF Output Port 1	16. Power Button

1. SD Card

2. Ethernet

3. USB Port

4. Power Jack

Standard Features

The below list of features come standard on every CX300.

- 3 GHz frequency range
- Spectrum Analyzer
- Tracking Generator
- WiFi
- VNC
- GPS

- Smart Access Anywhere
- StrataSync
- Remote Command Interface
- Bluetooth
- Foreign Language GUI

Optional Features

The below features are options available on the CX300.

- Frequency Range up to 6 GHz
- P25
- P25 Phase 2
- Auto-Test Applications

- Bird Power Meter
- Cable and Antenna Analysis
- DMR
- DMR Repeater

- TETRA Parametric
- NXDN
- Two Port VNA
- S Parameters

A Complete Test Suite

The global land mobile radio (LMR) market is rapidly transitioning from analog to digital. The CX300 is designed with advanced frequency, power, and modulation analysis instruments for both analog and digital systems.

The CX300 Instruments and Technologies Currently Available

- AM/FM/PM/SSB
- P25 Phase 1
- P25 Phase 2
- LSM
- NXDN

- OneViewer Post Analysis Software
- DMR
- DMR Repeater
- Tracking Generator
- Vector Network Analyzer

- TETRA Parametric BS
- TETRA Parametric MS
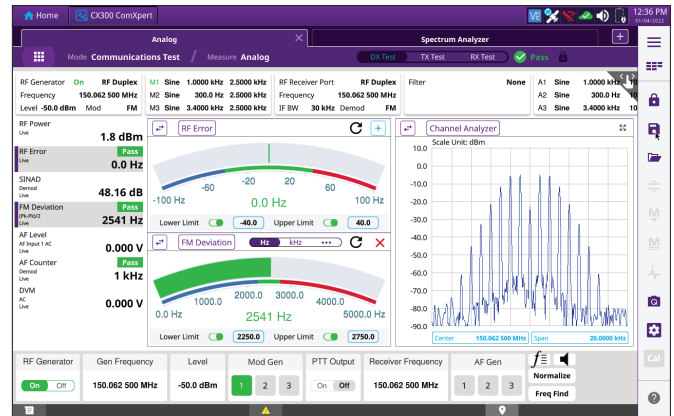- DMR, NXDN and P25 Vocoder
- AES/DES Encryption
- Keyloader

CX300 Instruments and Technologies Coming Soon

- P25 Trunking
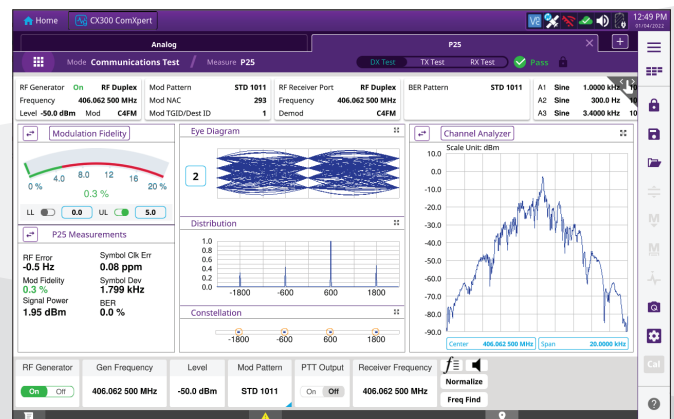- LTE
- TETRA MS Protocol

Innovative User Interface

An industry-first multi-tab user interface allows you to instantly switch between test setups without having to reload settings. This user interface is similar to an internet browser with the ability to switch between test setups with a push of a button. The revolutionary QuickSwitch™ feature makes testing quick and easy by allowing you to rapidly switch between the Duplex, Transmit, and Receiver Tests without leaving the current test measurement setups. QuickSwitch is available in analog, P25, and DMR testing modes.

Multi-Tab User Interface with QuickSwitch
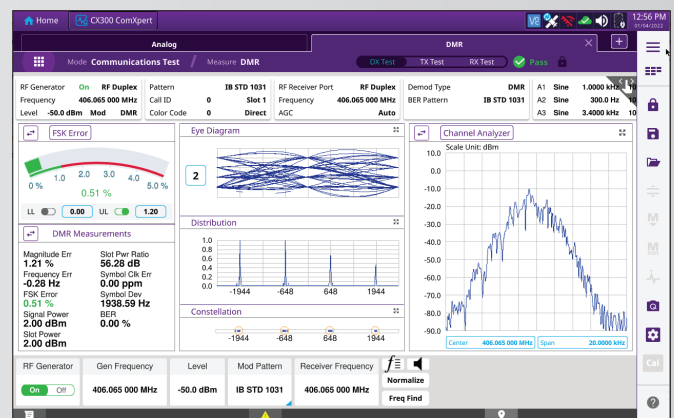
P25 Test Features (Optional)

The CX300 provides many P25 test features, including Linear Simulcast Modulation. The large display provides access to the distribution plot, eye diagram, constellation plot, and trajectory plot displays for in-depth modulation analysis. You can view multiple plots simultaneously, or can enlarge a specific plot to full screen for detailed viewing. Measurements are displayed in an easy to read format.

P25 Diagrams and Plots

DMR Test Features (Optional)

The CX300, when equipped with the DMR Option, allows you to test a wide range of DMR infrastructure and subscribers. The large display provides access to the distribution plot, eye diagram, constellation plot, and burst profile plot displays for in-depth modulation analysis. DMR measurements are displayed in an easy to read format.
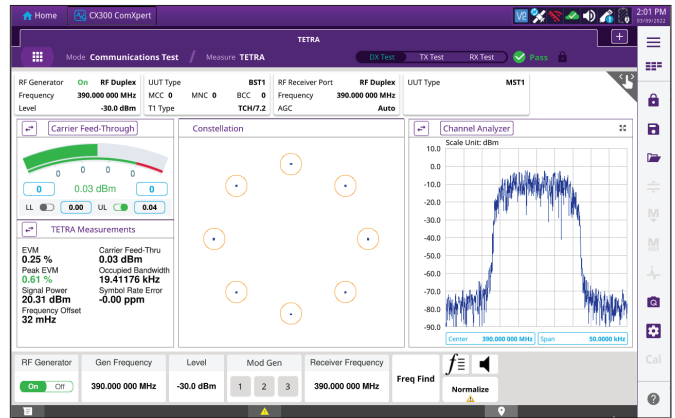

DMR Test Screens
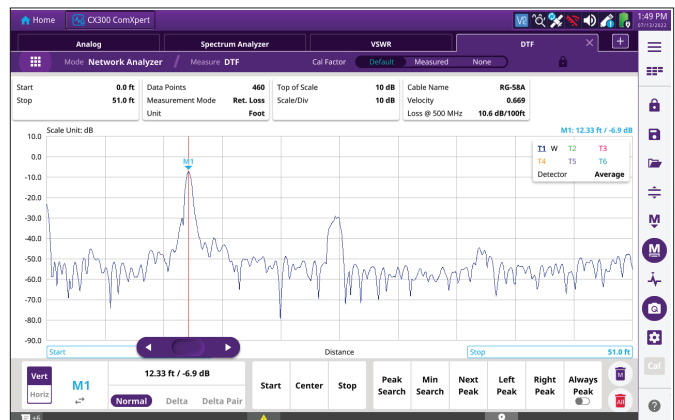
TETRA Test Features (Optional)

The CX300, when equipped with the TETRA Option, allows you to test a wide range of TETRA radios, mobile and base stations. TETRA measurements are displayed in an easy to ready format.

TETRA Test Screens

Cable and Antenna Analysis (Optional)

The CX300 Cable and Antenna Analysis Option allows you to test Distance to Fault, VSWR, Return Loss, and Cable Loss using the built-in Vector Network Analyzer in a 1-port configuration.

Cable and Antenna Analysis Screens

Two Port Vector Network Analyzer (Optional)

The CX300 Two Port Vector Network Analyzer option provides you with an all-in-one, multipurpose test instrument. Already a fully featured communication service monitor, this option adds the ability to perform additional advanced measurements in Insertion Loss and Group Delay.

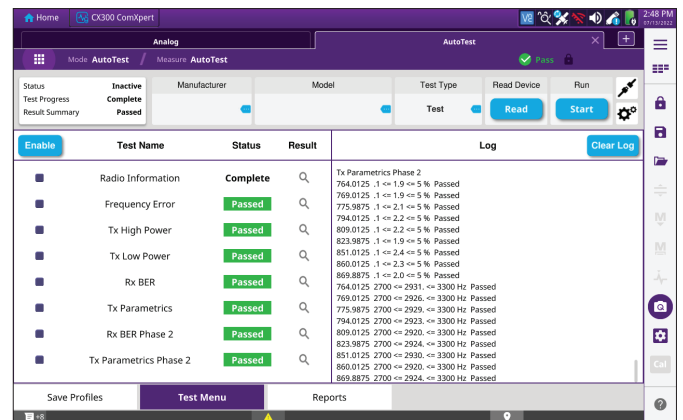## Advanced S Parameters - S_{11} and S_{21} (Optional)

In addition to the Cable and Antenna Analysis feature and 2 Port VNA, the CX300 also provides the ability to perform advanced S_{11} and S_{21} measurements. These measurements are: Log Magnitude, Linear Magnitude, Phase, Phase Unwrapped, Real, Imaginary, Real Impedance, and Imaginary Impedance.

Auto-Test (Optional)

The CX300 is designed for complete automated radio test and alignment for analog and digital radios. Using the accurate instrumentation and high-speed remote command architecture, the CX300 optimizes radio performance in minutes with minimal human interaction.

The CX300 supports numerous automated test and alignment options. Customize test sequences and parameters to fit your testing needs. Once your test is configured, the CX300 allows you to view the test progress and the test results at the same time.

Auto-Test Screens

Test results are automatically stored and can be exported through USB to an external PC for printing and for documentation purposes. Your test data can also be uploaded to VIAVI StrataSync or transferred to a PC or portable device utilizing the Smart Access Anywhere app.

VIP Tool (Optional)

The VIP Tool removes unnecessary complexities with traditional instrument programming by leveraging the power of Microsoft Excel. It is scalable, allowing you to create scripts that are as simple or as intricate as you desire. This tool allows you to easily create and export easy-to-read reports with supporting graphics, like Channel Analyzer and Distribution Plots. Work smarter, not harder with the VIP Tool.

StrataSync

StrataSync is a hosted, cloud-based software application that provides asset configuration and test-data management from anywhere in the world. The wireless technology in the CX300 lightens your workload by synchronizing your test results to the cloud and keeping your test set updated with the latest software. Easily save and access test results for both manual and automated tests.

StrataSync Dashboard

Smart Access Anywhere

The VIAVI Smart Access Anywhere application is a handy tool for remotely controlling the CX300. The SAA App enables remote operation from your PC or portable device, which allows your to operate the unit and transfer files from a remote location.

Smart Access Anywhere

Ordering Information

Versions and Options

Order Number	Description
CX300	CX300 ComXpert Communications Service Monitor
	Standard Accessories
	AC / DC Power Adapter
	AC Power Cord – US
	AC Power Cord – China
	AC Power Cord – Europe
	AC Power Cord – UK
	Internal Battery, 98 Watt-Hour, Lithium-Ion (Qty 2)
	Front Cover
	Desktop Stand
	Shoulder Strap
	Side Strap (Qty 2)
	Stylus
	Adapter, N(m) to BNC(f) (Qty 3)
	StrataSync
	Smart Access Anywhere

Options

CX300-DDMR	DMR Test Option
CX300-DDMRR	DMR Repeater (Requires DMR)
CX300-DNXDN	NXDN
CX300-DP25P1	P25 Conventional (Phase 1)
CX300-DP25P2	P25 Phase II (Requires P25 Phase 1)
CX300-DTPB	TETRA Parametric Base Station
CX300-DTPM	TETRA Parametric Mobile Station
CX300-F6GHZ	6 GHz Range Extension
CX300-SCAA	Cable and Antenna Analysis (1-port Vector Network Analyzer) (Requires CX300-ASOL)

CX300-SCLC	Software Checklist Configurator
CX300-SENC	Software AES and DES Encryption
CX300-SKEY	Keyloader Option
CX300-SPAA	Software Post Analysis Application
CX300-SVOC	Vocoder Option
CX300-SPSB	External Power Sensor Support, BirdRF 501xD
CX300-SSPAR	S Parameters (Requires CX300-SCAA and CX300-SVNA)
CX300-SVIP	VIP Tool
CX300-SVNA	Vector Network Analyzer (2-port, 1-path) (Requires CX300-SCAA)

Auto-Test and Alignment

P25 Radios (Requires CX300-DP25P1)

CX300-TPBK	BK KNG Series
CX300-TPHP25	L3Harris P25 Series (P7300, M7300, P5500, XG-75 Series)
CX300-TPHXL	L3Harris XL Series
CX300-TPIP25	ICOM P25 Series
CX300-TPKV	Kenwood Viking Series
CX300-TPMA	Motorola APX Series
CX300-TPMA25	Motorola ASTRO 25 XTS/XTL Series
CX300-TPMAN	Motorola APX Next Series (Requires CX300-TPMA)
CX300-TPTPM	Tait P25 Series (Test Only)

DMR Radios (Requires CX300-DDMR)

CX300-TDM	Motorola MOTOTRBO Series
CX300-TDTPM	Tait DMR Series (Test Only)

Multi-Protocol Radios (Requires CX300-DP25P1 or CX300-DDMR)

CX300-TMKNX	Kenwood NX-X000 Series

Ordering Information continued

Recommended Accessories

CX300-AANT1	Antenna Kit, 1 GHz
CX300-ABAT	Internal Battery, 98 Watt-Hour, Lithium-Ion
CX300-ACBL	RF Cable for AutoAlignment
CX300-ACH	Carrying Case, Hard Transit
CX300-ACS	Carrying Case, Soft

Optional Accessories

CX300-ABATC	External Battery Charger
CX300-ACB	Carrying Case, Backpack
CX300-ACS10	10 Amp Current Shunt 0.01 Ohm
CX300-ADC	Power Adapter, Automotive DC/DC (Cigarette Lighter)
CX300-AGPS	GNSS/GPS SMA Mount Antenna
CX300-AMIC	Microphone
CX300-ASOL	Calibrator (Short-Open-Load)
20327	Adapter, N(m) to BNC(f) (Qty 3)
82556	Attenuator (6 dB/150 W), 1.5 GHz
92793	Bird 5017D Wideband RF Power Sensor
140227	Attenuator (40 dB/2 W), 18 GHz, Type N
22124982	Side Strap (Qty 2)
22136776	Front Cover
22141588	Shoulder Strap
22152084	Desktop Stand

Calibration Certificates

CX300-C9001	Calibration Certificate with Test Data (ISO 9001)

Care Support Plans

SilverCare (Includes Extended Warranty and Calibration Plan)

CX300-SILVER-3	SilverCare - First 3 Years
CX300-SILVER-5	SilverCare - First 5 Years

MaxCare (Includes Extended Warranty, Calibration Plan, Loaner, and Accessory Replacement)

CX300-MAXCARE-3	MaxCare - First 3 Years
CX300-MAXCARE-5	MaxCare - First 5 Years

Certified Calibration Care Plan Add-ons (Requires corresponding SilverCare/MaxCare Plan)

CERT-CAL-DATA-3	Certified Calibration Data - Pre and Post Cal Data Report for Care Plans - First 3 Years
CERT-CAL-DATA-5	Certified Calibration Data - Pre and Post Cal Data Report for Care Plans - First 5 Years

Training

Contact us for Training and Support Options

VIAVI Care Support Plans

Increase your productivity for up to 5 years with optional VIAVI Care Support Plans:

- Maximize your time with on-demand training, priority technical application support and rapid service.
- Maintain your equipment for peak performance at a low, predictable cost.

Plan availability depends on product and region. Not all plans are available for each product or in every region. To find out which VIAVI Care Support Plan options are available for this product in your region, contact your local representative or visit: viavisolutions.com/viavicareplan

Features

*5-year plans only

Plan	Objective	Technical Assistance	Factory Repair	Priority Service	Self-paced Training	5 Year Battery and Bag Coverage	Factory Calibration	Accessory Coverage	Express Loaner
BronzeCare	Technician Efficiency	Premium	✓	✓	✓				
SilverCare	Maintenance & Measurement Accuracy	Premium	✓	✓	✓	✓*	✓		
MaxCare	High Availability	Premium	✓	✓	✓	✓*	✓	✓	✓

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