- Complete 5 to 1006 MHz analog and digital measurements with fast spectrum analyzer

- MER, pre- and post -FEC BER, MARGIN, Digital power level

- Analog video level, C/N, V/A, MARGIN

- AC/DC voltage measurements

- Automatic channel plan builder with digital modulation parameter detection

- Scan, Limit and Tilt measurements show network frequency distortion problems

- User friendly interface with more than 4 hours battery work

PLANAR

PLANAR, an already proven manufacturer of reliable and modern «field» meters, presents a new level and more effective technical solution for analyzing television cable signal. IT-19C is an ideal tool for field technicians looking for a simple yet universal tool to quickly provide quality CATV services. IT-19C is a fast and compact analyzer with an impressive feature set and high performance. It allows you to perform all the necessary tests to verify digital and analog signals up to 1 GHz.

For signals of J.83 Annex A/B/C digital cable television standards incl. DVB-C, the Analyzer allows to measure parameters of reception quality — Modulation Error Ratio (MER), Bit Error Ratio (BER), the number of wrong MPEG stream packets, the noise immunity margin (MARGIN), and the constellation diagram (only on PC software ViewIT19).

IT-19C performs all tasks quickly and efficiently. Users can access all previous tests by pressing a command from the main menu. The automatic test function allows to take a set of user-defined measurements with indication (PASS/FAIL) which helps to save time and make sure that measurements are made consistently with each installation.

Automatic channel detection (Digital/Analog), synchronization and spectrum analysis became even faster. The device's compact size and light weight may be misleading, but be sure, it offers the highest quality and accuracy measurements.

Standard delivery Set

The IT-19C Analyzer
with Li-Po battery included
F-F RF adapter
Rubber boot
12V/1.2A charger
Reference card
Quick start guide

Channel measurement mode

Channel	🔒	0 VDC	
PASS	DVB	Dig 2	CH S15
CR		266.000 +0.00 MHz	

P, dBuV	MER, dB
61.1	**37.7**

		MARGIN	<6.7 dB
ERROR	000000	CBER	<1.0E-09
UPTIME	00:00:23	PER	<1.0E-09

| Settings▲	Info	Reset

The IT-19C can measure signal levels of both analog and digital channels. For analog signals the meter will display the video carrier level, video frequency, C/N, and V/A ratio. For digital channels, the IT-19C measures the digital average channel power and displays the center frequency.

The MER/BER mode allows users to test digital QAM Annex A, B, or C channels for digital quality measurements and display their MER and Pre- and Post-BER. It can also display the digital modulation information (QAM-64/128/256 and Msps).

Tilt measurement mode

The tilt function shows a graphical and numerical representation of the channel level, slope line between the peaks of selected channels with or without the specified frequency plan.

IT-19C can indicate if the network under test has a positive or negative frequency slope. Users can quickly select which tilt channels to measure to help determine the correct tilt settings.

Full-Scan		0 VDC	
PASS	AN	Friday	CH S12

239.250 MHz	V:67.1 dBuV	Δ: -2.1 dB

Settings▲	Tilt●	Marker▲
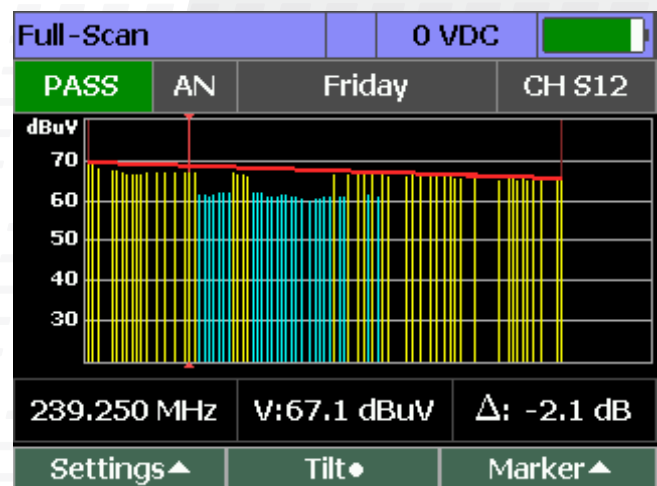
Channel Test mode

Channel Test				
Page name	Channel log 15			
Measured	75 / 75			
State	Errors found			

Parameter	Min	Measured	Max
Defective an. ch.		2 / 48	
Defective dig. ch.		2 / 27	
Δ An. ch., dB		66.8	30
Δ Dig. ch., dB		1.5	30
Δ An./Dig., dB	-6	-58.0	11

Start	Map

This mode allows performing all possible operations with the Channel Data Logger: viewing, deleting and creating a new page. Technicians can perform automated testing with IT-19C using the Channel test mode.

It is possible to perform PASS/FAIL tests and upload results via an ViewIT19C software application for records management, which simplifies testing verification and maintains consistent testing parameters.

Full-Scan mode
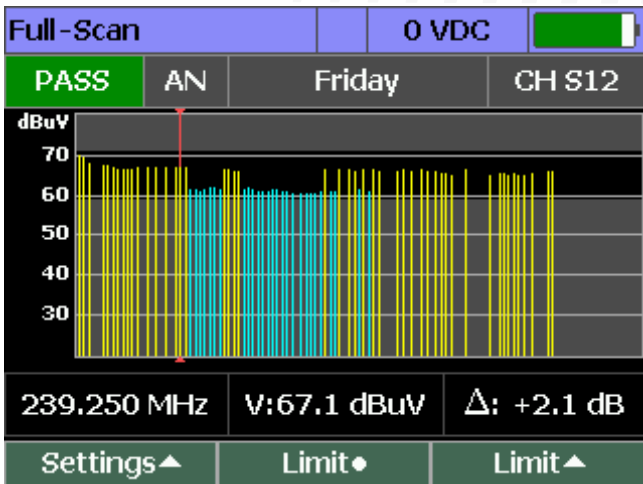
The IT-19C allows users to see all channel levels on one screen, and quickly check if certain channels are missing or if the network has other issues, such as tilt or ripple. An adjustable marker is available to identify specific channel identification and troubleshooting.

When working without a channel plan upon entering the mode, channel types are also performed after a signal appears at the device input (if there was no signal before).

The work is carried out on all channels of the television system. Scanning is performed only on the selected channels when working with one of channel plans.

The marker is configured according to plan channels.

Spectrum measurement mode

Often used to detect problems with a cable modem and very useful for eliminating interference and noise in both the forward and return bands.

IT-19C offers an advanced spectrum analysis function with a frequency range from 5 MHz to 1006 MHz and sensitivity down to -50 dBmV (@250 kHz).

The mode has access to marker and hold functions (Max/Min), making it easy to capture and analyze transient processes.
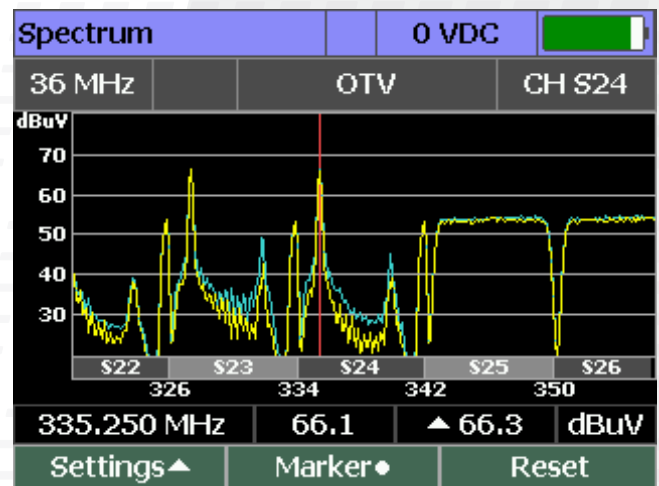
Channel Plan List

This mode allows performing all the operations with channel plans: viewing, editing, deleting, and creation of new pages. Users can create Channel Plans, creating them entirely on the ViewIt19C, or using the IT-19C in combination with the ViewIt19C to make final edits and modifications. The ability to transfer channel plans between the ViewIt19C and the IT-19C device allows to make modifications quickly as channel plans evolve.

Data Logger

The IT-19C allows user internally to store the required measurements for a later review.
It can also be printed or transferred to a PC for further analysis.

ViewIt19C Software

ViewIt19C is the computer software application included with the ViewIt19C that is used to quickly and efficiently configure the ViewIt19C. The ViewIt19C helps users configure settings, channel plans, limit plans, and facilitate updates to the ViewIt19C. It is also used to extract Channel test results for records management, archive and perform live measurements when connected to RF signals.
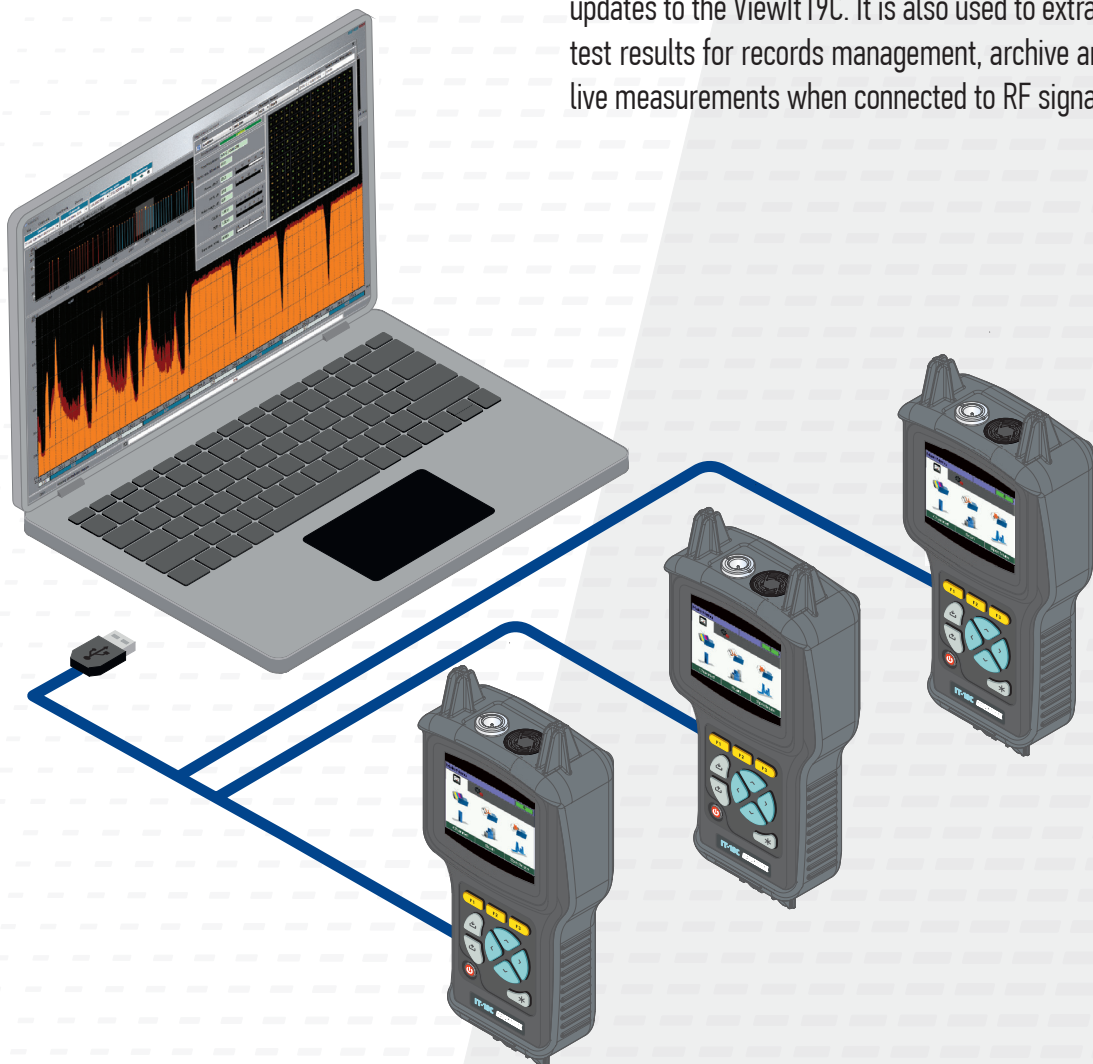
Specifications

FREQUENCY

Measurement range	5 to 1006 MHz
Tuning resolution	125 kHz
Annex A channel bandwidth (nominal)	8 MHz
Annex B/C channel bandwidth (nominal)	6 MHz

FREQUENCY

Level Measurement, Analog	B/D/G/H/I/K/ M/N
Audio types	Mono
Measurement resolution	0.1 dB
Display range	− 50 to +60 dBmV
Maximum total integrated RF power	+60 dBmV
Accuracy	±1.5 dB, 25 ℃ ±2 dB, −10 to +50 ℃
C/N algorithm	Peak video to RMS noise
Resolution bandwidth (nominal)	230 kHz
C/N offset	±8 MHz
C/N Selectable	On/Off per

LEVEL MEASUREMENT, DIGITAL

Measurement bandwidth	4.0 to 8.0 MHz
Measurement resolution	0.1 dB
Display range	−40 to +60 dBmV
Maximum total integrated RF power	+60 dBmV
Accurate range	-30 to +60 dBmV
Accurate	±1.5 dB, 25 ℃ ±2 dB, −10 to +50 ℃

SPECTRUM

Measurement bandwidth	250 kHz
Measurement resolution	0.1 dB
Display range	-50 to +60 dBmV
Maximum total integrated RF power	+60 dBmV
Accurate range	−30 to +50 dBmV
Accuracy	±1.5 dB, 25 ℃ ±2 dB, −10 to +50 ℃

FULL SCAN AND TILT

Tilt	A/B delta, dB
Resolution	0.1 dB

QAM MEASUREMENTS

Encoding	ITU J.83 Annex A (DVB-C) ITU J.83 Annex B ITU J.83 Annex C
Modulation types Annex A: Annex B: Annex C:	64, 128, 256 QAM 64, 256 QAM 64, 128, 256 QAM
Minimum lock level (256 QAM)	-15 dBmV
Maximum total integrated RF power	+50 dBmV
MER display range	21 to >40 dB (64 QAM) 24 to >40 dB (128 QAM) 27 to >40 dB (256 QAM)
MER resolution	0.1 dB
Pre-FEC BER	4.0E-3 to 1.0E-9
Post-FEC BER	4.0E-3 to 1.0E-9
Symbol rates Annex A: Annex B: Annex C:	5.00 to 7.20 Msps 5.00 or 5.437 Msps 5.00 to 5.437 Msps
Frequency offset resolution	0.01 MHz

Specifications

CHANNEL TEMPLATES

Channel templates available	OIRT D/K; CCIR B/G; Australian; Australian SBAN

CHANNEL PLANS

Plan creation algorithm	AutoPlan
Plan index	1 to 64 (maximum)
Plan name	15 characters (maximum)

CHANNELS

Channel index	1 to 144 (maximum)
Channel number	3 characters (maximum)
Channel name	6 characters (maximum)

INTERFACES

RF input	75Ω
F connector	F to F female adapter
Protection Max. sustained	150 VAC/VDC
USB interface	v2.0
USB connector	USB-B receptacle

IT-19C CAPABILITIES

Additional Measurements	5 MHz to 1 GHz Spectrum display QAM Constellation diagram (PC software)
Asset management	Firmware upgrade Serial number
Configuration	Settings management Channel Plan management Autotest management Limit Plan management

GENERAL

Display	Colour, 2.8" (320x240)
Language support	English, German
Dimensions	193 x 94 x 53 mm
Device weight	0.5 kg
Storage temperature	-20 to +50 ℃
Operating temperature	-10 to +50 ℃
Charge temperature	0 to +45 ℃
Power	Built-in battery
Charge time	1 to 4 hours (typical)
Warm-up time	2 minutes
Power supply input	100 to 240 VAC 50 to 60 Hz
Power supply output	12 VDC 1.2 A (maximum)

Test & Measurement Regional Sales

PLANAR