PROMAX

Telecommunications Test Equipment

An instrument for every budget

For over 40 years **PROMAX** has been equipping installers with advanced instruments that are guaranteed to meet their needs.

In 1996 **PROMAX** launched the **PROLINK** series. Its innovative modular technology, enabled the user to make the leap to digital television with a very modest initial investment. Those who trusted **PROMAX** have been in the position to easily adapt their instrumentation to the continually changing requirements of these times.

Due to a ceaseless investment in R&D we are now in a position to present our new **PROLINK** ***Premium*** series, representing a new technological leap forward in instruments for installation, certification and the maintenance of telecommunications systems.

On new series for the 2005 year, we present the DAB for digital DAB radio and Wi-Fi for measurements, as well as coverage analysis on ISM band networks.

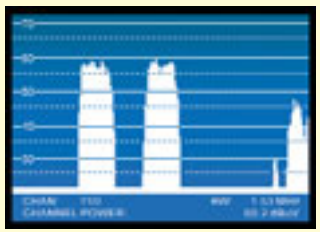
Easily choose the instrument to fit your needs

PROLINK *Premium*	PROLINK-2	PROLINK-3	PROLINK-3C	PROLINK-4	PROLINK-4C
Digital Satellite DVB-S	Included	Optional	Optional	Included	Included
Digital Terrestrial DVB-T	Included	Optional	Optional	Included	Included
Digital Cable DVB-C	-	Optional	Optional	Included	Included
Automatic measurements	-	Included	Included	Included	Included
MPEG Decoder (free to air channels)	-	Optional	Optional	Included	Included
MPEG Decoder (encrypted channels)	-	-	-	Included	Included
Wi-Fi Measurements	Included*	Included*	Included*	Included*	Included*
DAB Measurements	-	-	-	Included	Included
Constellation diagram (QAM & COFDM)	-	-	-	Included	Included
Transport Stream Input-output	-	-	-	Included	Included
Colour TFT Display	-	-	5”	-	5”

(*) Optional accessory required

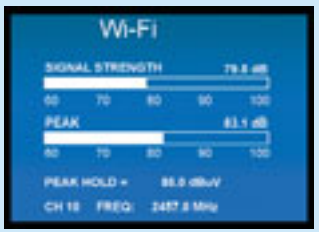
DAB MEASUREMENTS

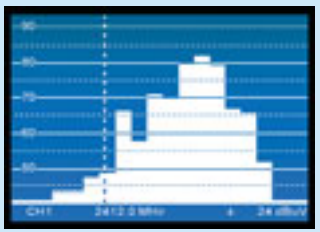
PROMAX has developed a specific module for the **PROLINK-4** ***Premium*** and **PROLINK-4C** ***Premium*** meters intended to measure the quality of the DAB Digital Radio signal reception.



Wi-Fi MEASUREMENTS

The new equipment developed by **PROMAX** allows **Wi-Fi** technology-based broadcast verification by including specific functions for field analysis.





Time proof investment

- Sturdy, compact design with an eye for detail
- Advanced measurements for new requirements of digital TV
- High-performance spectrum analyser
- Demodulation of free to air and encrypted digital channels
- Automatic measurements, generation of reports, monitoring
- Excellent world wide after-sales service
- Unbeatable features/price ratio

- **Large colour TFT display**
- **Portable**
- **Light weight and reduced size**
- **Back-pack type carrying case**
- **Transport case (optional)**
- **Very user friendly**
- **Menus in various languages**

An eye for detail

At **PROMAX** we have always believed that excellence can only be achieved through meticulous attention to detail. This is why, when designing the ***Premium*** series, we have given special attention to the small details that make all the difference.

The **PROLINK-4C** includes a 5" TFT display, striking the best possible balance between large dimensions and the portability of a field instrument.

The contrast (320 cd/m2) is much better than that usually found in this type of LCD's, allowing it to be used in sunlight.

Its wide working temperature range (-30 to 85 ºC) makes it suitable for outdoor use, even in extreme weather conditions.

Thanks to the light-weight materials employed in its construction and its small dimensions, the **PROLINK** ***Premium*** hardly weighs 5 kg

Advanced design techniques, such as the use of 4-layer printed circuits and mini-SMD mass assembly, have enabled to achieve a very reduce size for an instrument of such features.

The ***Premium*** series **PROLINK**'s are delivered with a carrying bag containing plenty of space for small working tools(*).

The carrying bag incorporates a viewing hood to improve screen contrast when working with direct exposure to sunlight (*).

For improved comfort, the carrying bag may also be used as a backpack, making it easier to climb ladders and moving over roofs (*).

Optionally, **PROMAX** also offers a case (DC-233), ideal for extra protection of the instrument during transport.

The iconographic keyboard makes for a very user-friendly interface where all the functions may be quickly learnt. With the rotary-button encoder, all functions may be easily selected and validated.

The menus are available in various languages.

(*) Optional for PROLINK-2 *Premium*

(**) Except PROLINK-2 *Premium*

- **Analogue TV measurements**
- **Digital TV measurements QPSK/QAM/COFDM**
  - **Channel Power**
  - **Carrier/Noise**
  - **Bit Error rate (BER)**
  - **MER and CSI**
  - **Constellation (QAM & COFDM)**
- **MPEG transport stream analyser**
- **Satellite IF test**
- **Digital audio measurements**
  - **NICAM sound**
  - **RDS Radio**
  - **DAB digital radio**

Advanced measurements for new requirements of digital TV

Digital Satellite (QPSK DVB-S)

The **PROLINK** ***Premium*** range instruments that have this function, are measuring the Bit Error Rate (BER) before and after Viterbi. They include the DCI - Digital Channel Identifier (patented function), which helps to identify the selected channel almost instantaneously. *(**)*

Measurement of the Bit Error Rate before the first correction (Viterbi) is more sensitive to small variations in reception quality. Measuring after Viterbi allows for comparison with the quality minimum requirements for DVB and defined by the QEF (Quasi Error Free) threshold.

MPEG transport stream analyser *(**)*

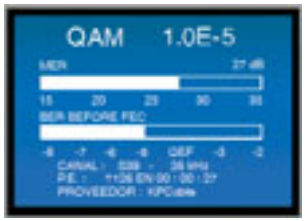
The 'wrong packages' function analyses in detail the MPEG-2 transport stream. The analysis consists on a continuous monitoring of the packages received during a period of time and then determining the cause of any reception problems. In Digital Terrestrial Televisión DVB-T, impairments are often due to impulsive noise caused by traffic and the 'Wrong packets' function will the way to determinate or analy it.

The instrument records all the errors or events detected in the MPEG-2 Transport Stream, according to standard ETSI TR 101290 'Measurement guidelines for DVB systems' as defined by the 'European Telecommunications Standards Institute'.

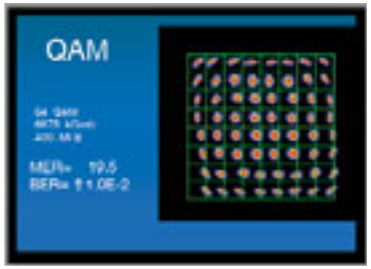
It records the type of event along with the time and duration of each one. Also the total measuring time and the total number of events is registered.

Digital Cable (QAM DVB-C)

In digital cable, **PROLINK** ***Premium*** including this function measures both the BER and MER error rates in QAM digital signals. The BER is usefull to confirm that system measurement meet with the DVB-C quality limits. The MER is proportional to signal quality and gives complementary information which enables the noise margin to be optimised. For example, quality of a signal with an excellent BER can be improved with adjustment of the MER. The DCI function is included within this display.

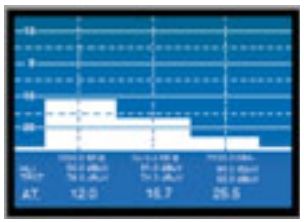


In QAM signals, it is very valuable to analyse the constellation diagram which, with a simple glance, will show up any signals with noise-related errors, IQ imbalances, phase errors, etc.



Satellite IF Test for network test and equalisation

This function has been designed to test the satellite IF distribution network in buildings and to equalise the band before any signal is available. It is used in combination with the **RP-050.** This is a signal generator with 3 carriers in the satellite IF band.



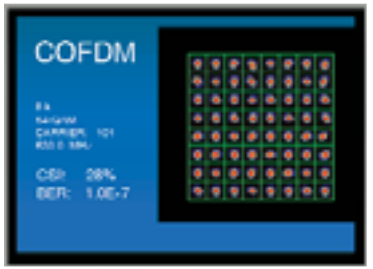
With this function it is possible to check at a glance the response of the system in the beginning, middle and end of the band at any outlet.

Terrestrial Digital (COFDM DVB-T)

PROLINK ***Premium*** instruments including this function measure the BER to contrast with DVB-T quality limits. They also measure the MER, to guarantee safety margins and good reception in the event of changing meteorological conditions, etc.

The instrument also measures CSI ('Channel Status Information') which provides valuable additional information on the quality of the carriers making up a COFDM channel.

In COFDM, by analysing the constellation diagram it is possible to detect impairments in any of the thousands of carriers that compose a DTT signal.

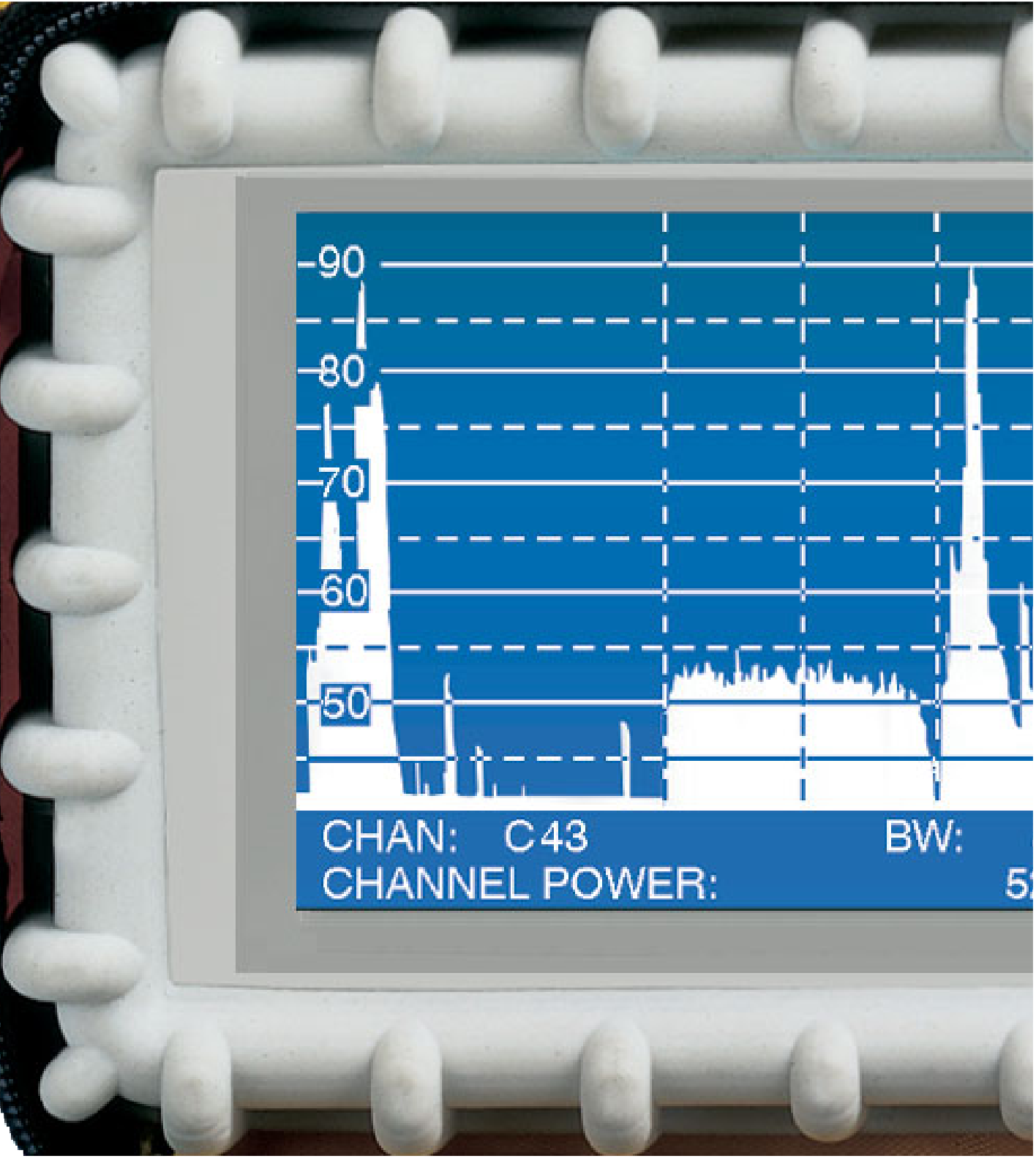


Digital audio measurements

The **PROLINK** ***Premium*** series allows various types of measurements to be taken on digital audio systems. This includes measuring the quality of NICAM digital sound.

In FM radio it is possible to measure the quality of the RDS signal (Radio Data System) using the EBB (Error Block Balance) function. This function also allows to access information associated with this type of transmission.

(**) Except PROLINK-2 *Premium*



- **High accuracy**
- **High-speed sweep**
- **High frequency resolution**
- **High sensitivity**
- **Flexible amplitude resolution**
- **Maximum and minimum hold**
- **Return channel coverage for Cable TV**
- **Measurement in ISM band**

High-performance spectrum analyser

High accuracy, high-speed sweep

The **PROLINK** ***Premium*** series includes a batch of improvements in spectrum analyser mode that makes it a highly useful tool in a large number of applications in telecommunications.

These instruments combine the advantages of high-accuracy systems, using the 'High Resolution' frequency sweep mode, with those of real time analysers, using the 'Aerial alignment' sweep mode

High frequency resolution

The adjustment of the minimum frequency range or Span on screen has been reduced to 4 MHz in satellite band and 8 MHz in terrestrial band. Using a measurement resolution filter of 50 kHz it is possible to perfectly view signals that were not even possible to detect until now with this type of equipment. For example, in SNG applications for the transmission of data from mobile units, the satellite identification is through detection of 'Beacon' signals at certain frequencies. These very low power signals, may be clearly observed on the screen of **PROLINK** ***Premium*** series instruments.

High sensitivity

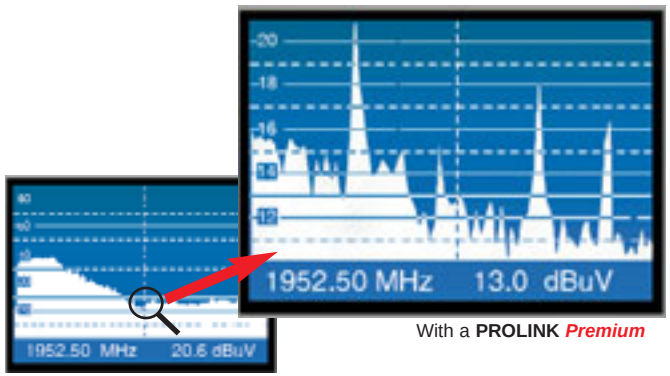
Another advantage of the **PROLINK** ***Premium*** series is its high sensitivity, which allows to measure very weak signals, even below 0 dBµV. This is an essential specification to measure the Carrier/Noise ratio (C/N) of digital signals, in accordance with the values demanded by current standards in different countries.

Flexible amplitude resolution

The **PROLINK** ***Premium*** series combines a wide dynamic range of 50dB with a selectable reference level and a very flexible vertical resolution of 2/5/10 dB per division. In practice this allows to pick up signal variations on-screen that are not visible on other meters.

The pictures below show a very low power signal as observed on the **PROLINK** ***Premium*** and on another device.

As you can see, only the **PROLINK** ***Premium*** clearly shows the 'beacon' signal of a VSAT transmission.

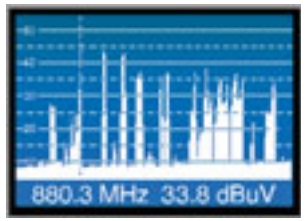


With another instrument

With a **PROLINK** ***Premium***

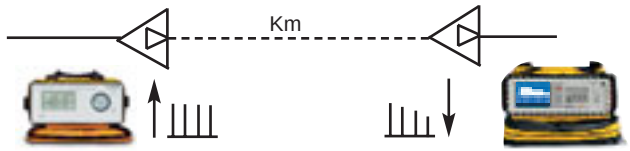
Maximum and minimum hold

An application of maximum hold could be the measurement of non-continuous signals such as those in GSM band. Minimum detection could be useful, for instance, to identify interferences in an analogue TV signal.



Return channel coverage for Cable TV *(**)*

In cable television it is very important to cover the return band from 5 to 100 MHz, as these frequencies are used for the implementation of interactive services (internet, pay TV, etc.). Together with the **RP-100**, the **PROLINK** ***Premium*** becomes a very powerful test set to quickly confirm the operation and response of the cables, amplifiers, etc. in a cable TV network.

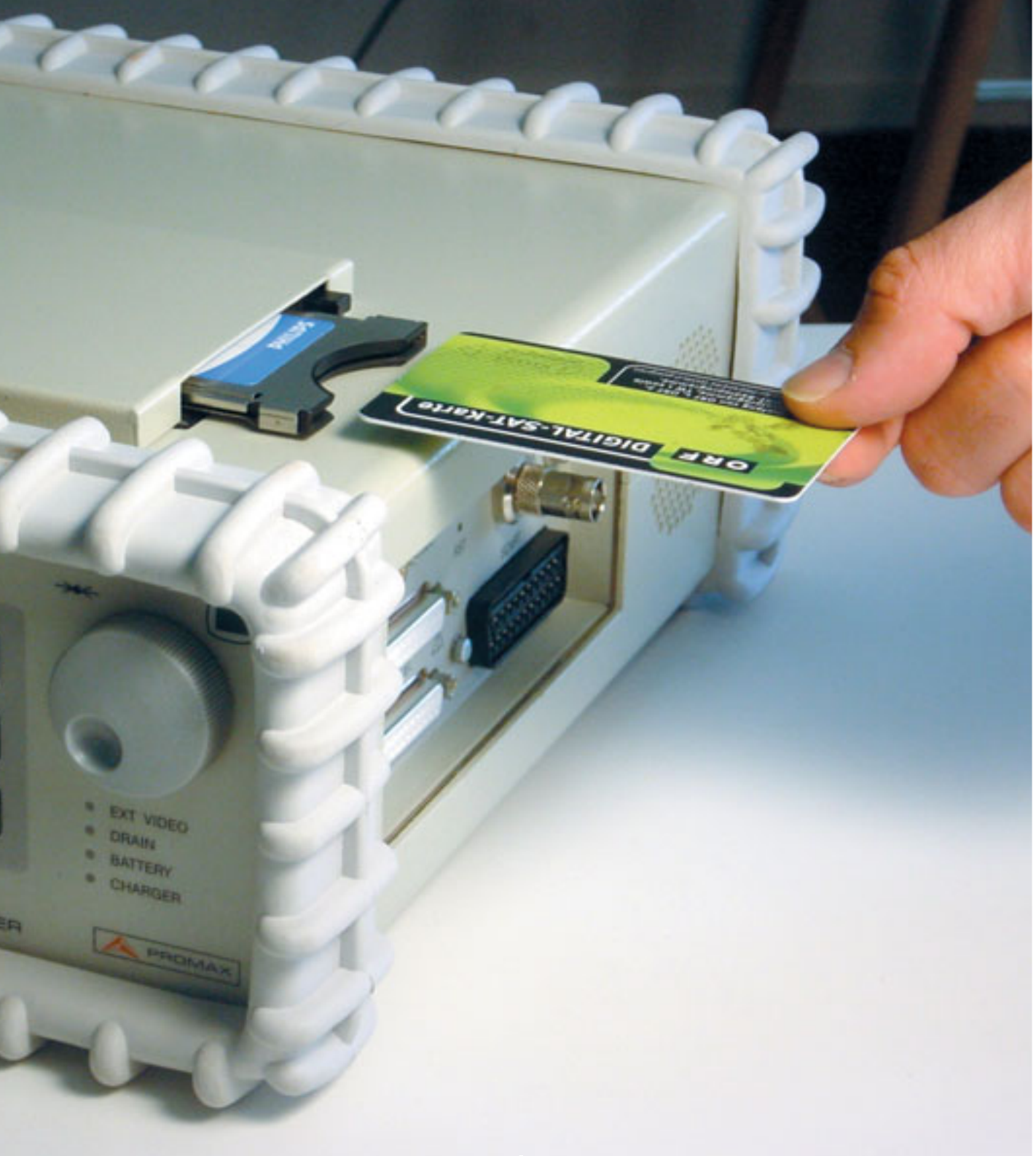


ISM band coverage (accessories not included)

There is a growing number of devices using the ISM band (Industrial Scientific and Medical) which operates at frequencies of 2.4GHz and 5.8GHz.

Optional converters CV-245 and CV-589 allow to use **PROLINK** *Premium* instruments in spectrum analyser mode for aligning aerials, detecting interferences, etc.

(**) Except PROLINK-2 *Premium*



- **DVB Digital Channels identifier - DCI**

  (Patented system)

- **List of services**

- **MPEG transport stream input / output**

- **Free to air channels decoder**

- **Video and audio PID indication**

- **Encrypted channels decoder**

  ‘Common Interface’ (Patented system)

Demodulation of free to air and encrypted digital channels

DVB Digital Channels Identifier - DCI *(**)*

The result of demodulating a QPSK, QAM or COFDM digital signal is a sequence of bits so called the 'Transport Stream'. These bits are structured into packets. Some of these packets transport compressed video, audio and data. Others contain the necessary information to access these contents. The NETWORK, PROVIDER and SERVICE identification tables may be constructed out of these later packets.

The information contained in these 3 tables appears in a sequential way at the bottom line on the screen on measuring the Bit Error Rate or BER.

List of Services *(**)*

Selecting the 'List of services' function information on the services in each multiplex or channel is displayed on-the screen.

This is: service or programme name, the type of service (television, radio, data or mosaic) and whether the information is encrypted or free.

MPEG Transport Stream input / output *(***)*

The **PROLINK-4/4C *Premium*** have MPEG transport stream input / output connexion through LVDS DVB-PI, D-25 parallel interface.

Free to air channels decoder *(**)*

Once one of the available services listed in 'DVB services' has been selected, it may be decoded and monitored.

In addition to the image and audio, this screen shows information about the measurement of the digital signal along with the NETWORK, PROVIDER and SERVICE identifiers.

Video and audio PID indication *(**)*

Another information obtained on selecting a service is the video packet identification (PID).

The PID is a personalised identifier for each network and each programme that is broadcasted. Its registration is regulated by the

EBU (European Broadcasting Union).

The instrument also provides information on the audio PIDs.

Encrypted channels decoder *(***)*

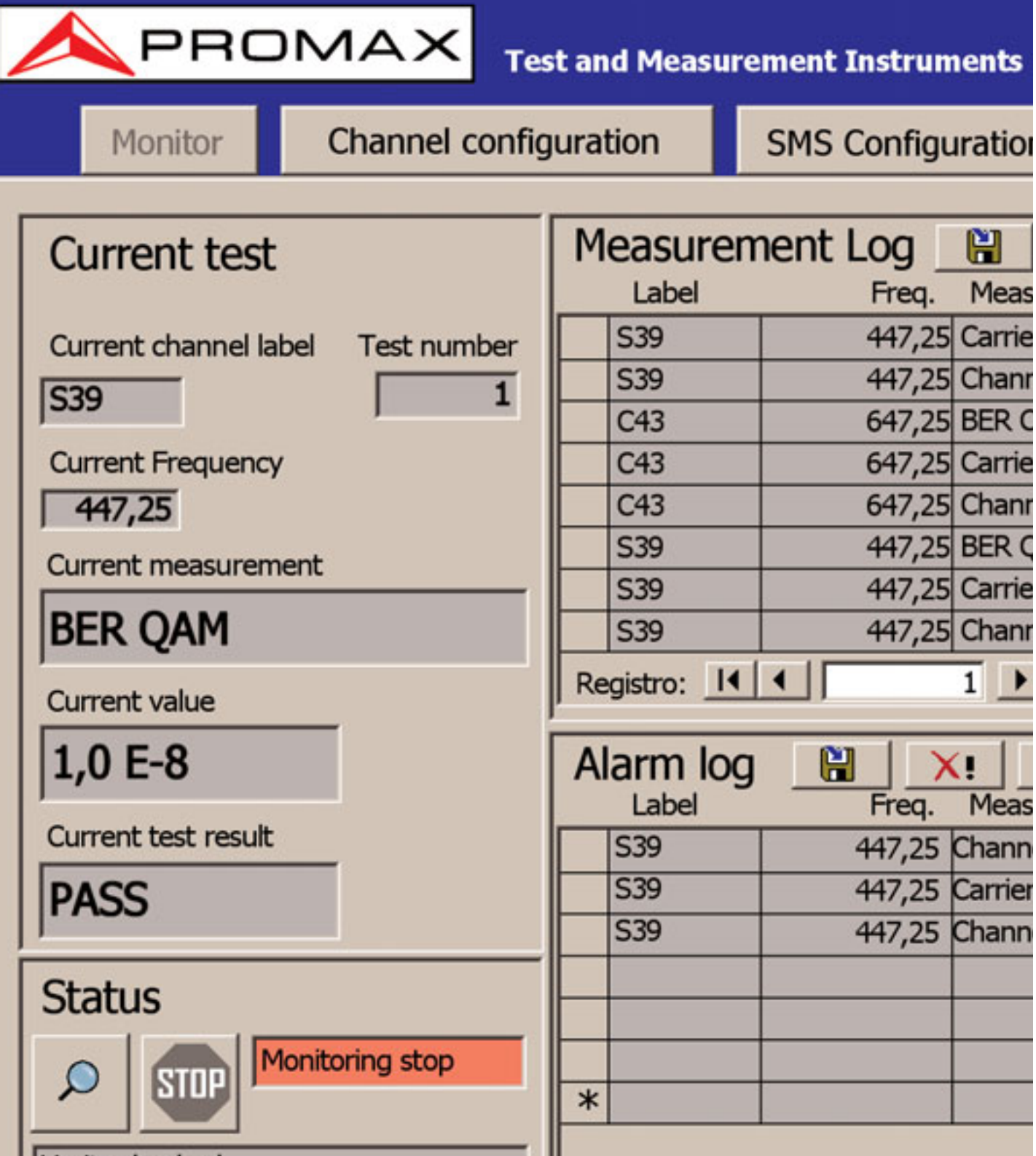
The use of encryption systems is widely spread in digital pay television. The operator encodes the signals and the subscriber holds a Smart Card giving access to those channels. The main limitation with this kind of solution is that each receiver specialises in a specific encryption system and can not be used for another system.

There is one alternative known as 'Common Interface' which allows the use of standard receivers. In this case the receiver has a slot to insert various conditional access modules (CAM) and their corresponding Smart Cards. This lets the user access the digital television content of various providers, even

if they use different encryption systems. **PROMAX** holds a patent over the use of 'common inteface' in test equipment.

(**) Except **PROLINK-2 *Premium***

(***) Only available in **PROLINK-4 *Premium*** and **PROLINK-4C *Premium***



- Measurement configuration memories
- Automatic measurements
- Connection to computer
- Certified reports
- Configurable reports
- Control commands for monitoring
- Control and alarms software
- Flexible channel plans

Automatic measurements, reports and monitoring

Measurement configuration memories

PROLINK *Premium* series instruments have 99 measurement configuration memories. Each configuration allows for the memorisation of detailed information on all the parameters related to the measurements: type of measurement (power , C/N, BER, MER, etc.), name, frequency or channel, measurement units, etc.

Automatic measurements *(**)*

PROLINK *Premium* instruments may be used as data acquisition units. With a single command they can automatically analyse and memorise up to 99 channels in one outlet. This process may be repeated for up to 99 outlets or testing points.

It can also be used to perform continuous measurements in one point of the network. Setting a time interval, from 1 second to 24 hours in between measurements, the instrument can be let in acquisition mode. This function is very useful to trace or monitor the network and to detect random-faults.

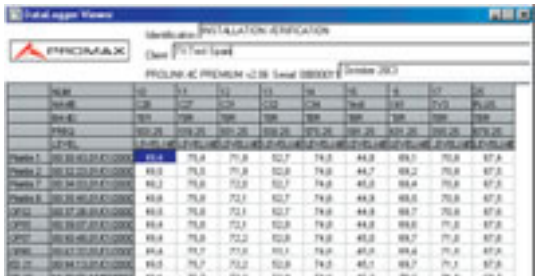
Connection to computer *(**)*

The measurements on the Datalogger as well as the spectrum, can be downloaded to the CI-023 printer.

Using the PKTools (RM-104) software, measurements may be transferred to a personal computer, for a more detailed analysis. This software is optional.

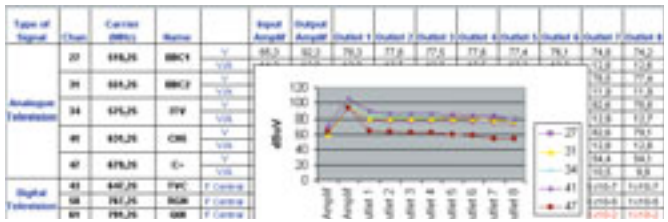
Certified and configurable reports *(**)*

The PKTools software allows to generate certified reports direct with the content in the data acquisition memory, and hindering the results from being altered in any way.



These reports may only be personalised to include the logo of the certifying company.

Alternatively, it is possible to make any other type of report, graphics or statistics using a standard spread sheet.



Control commands for monitoring *(**)*

This instrument has a wide range of commands allowing you to, for example, identify analogue and digital radio and television signals.

This gives the instrument a great deal of flexibility in generating remote control programs that are specific to each application, for example in quality control and monitoring systems.

Control and alarms software *(**)*

In some applications requiring prolonged or even permanent monitoring, the Datalogger included in the instrument might not be enough. The PKWatch software can prove especially useful in such cases.

PKWatch (**RM-204**) is an optional software that allows the user to select the channels and parameters to be traced using a very simple user-friendly menu. The program allows to stablish PASS/FAIL measuring margins and to generate alarms when the measurements do not fall within these limits.

This may be an useful monitoring tool in transmission systems, repeater stations, satellite reception and distribution systems or headends in cable TV.

Flexible channel set *(**)*

This feature is very useful to program the channel plans according to the specific requirements for each application.

For instance, the instruments may include the channel plans of various satellites in order to directly access each service.

(**) Except **PROLINK-2 *Premium***

- **Anti-shock protector**
- **Flat type sealed front panel**
- **Side-mounted connectors**
- **Replaceable adapters**
- **Long-life batteries (Li+)**
- **Quick battery charge from vehicle**
- **Battery status indicator**

Designed to protect your investment

PROMAX's PROLINK instruments have defined a before and an after in the industry for these type of instruments.

The ***Premium*** series will continue to set trends given their innovative design.

PROLINK *Premium* are sturdy and very compact instruments.

A rubber band, made to protect the instrument from unexpected shocks from any angle, covers the instrument, giving it the necessary strength and protection to prevent damage during transport or field work.

The instruments also have a special protection system to cushion the effects of any shock experienced by the screen *(**)*.

The front panel is flat and sealed.

A protection system to prevent the entry of water or dust through the encoder orifice, protects the instrument from light rain, cable shavings, dust, etc.

One of the most delicate components for such equipment are the input / output connectors, so they have been mounted on the side of the instrument. In addition, this area is sunken for better protection *(**)*.

The input connector is replaceable *(**)*, so it may be easily changed depending on the application or in the event of breakdown. The instruments are delivered with BNC-TV-F connectors *(**)*.

The Lithium-Ion batteries give an operational autonomy of over 4 hours (in analogue measuring mode).

Another advantage of this type of battery is that they can maintain its charge when the instrument is not being used. So that, even when the instrument has not been used for a long time, it is always ready to get back on operation whenever required.

Battery charging is quick and may be carried out in intervals. Using the included AA-103 adapter (*), battery charging may be performed from a vehicle's cigarette lighter.

In addition to the low-battery indicator, the instrument employs a screen where the user may consult the battery state, which also shows consumption by external units (amplifiers, LNBs, etc.) when they are powered from the instrument.

The front panel LEDs allow checking, at all times, the type of power source being used (mains or battery). The battery charging state shown by the flashing BATTERY OK indicator, can be checked at a glance.

(*) Optional for **PROLINK-2 *Premium***

(**) Except **PROLINK-2 *Premium***

Specifications	PROLINK-2 *Premium*	PROLINK-3//3C *Premium*	PROLINK-4/4C *Premium*
TUNING			
Range	45 to 862 MHz (± 1 dB accuracy*) 920 to 2150 MHz (±1.5 dB accuracy*) (862 a 2150 MHz optional)	5 to 862 MHz (± 1 dB accuracy*) 920 to 2150 MHz (± 1.5 dB accuracy*) (862 a 2150 MHz optional)	5 to 862 MHz (± 1 dB accuracy*) 920 to 2150 MHz (± 1.5 dB accuracy*) (862 to 2150 MHz optional)
Resolution	50 kHz	50 kHz	50 kHz
Mode	Frequency,Channel, Memory	Frequency,Channel, Memory	Frequency,Channel, Memory
SPECTRUM ANALYSER	High frequency and amplitude resolution	High frequency and amplitude resolution	High frequency and amplitude resolution
AUTOMATIC MEASUREMENT	-	Up to 9801 Unlimited using RM-104 / RM-204	Up to 9801 Unlimited using RM-104 / RM-204
DIGITAL MEASUREMENTS			
COFDM Signals (DVB-T)	BER after Viterbi, CSI	BER after Viterbi, CSI, MER (optional)	BER after Viterbi, CSI, MER, Constellation
QPSK Signals (DVB-S)	BER before/after Viterbi	BER before/after Viterbi (optional)	BER before/after Viterbi
QAM Signals (DVB-C)	-	BER before FEC and MER (optional)	BER before FEC, MER and constellation
TRANSPORT STREAM ANALYSER	-	Included (with digital optionl)	Included
IF SAT TEST	Included	Included	Included
DIGITAL AUDIO MEASUREMENTS	Included	Included	Included
DVB CHANNELS IDENTIFICATION	-	Included (with digital option)	Included
SERVICE LIST	-	Name/Type/Codification (with digital option)	Name/Type/Codification
VIDEO/AUDIO IDENTIFICATION	-	Included (with digital optionl)	Included
FREE CHANNELS DEMODULATION	-	MPEG-2 / DVB (MP @ ML) (with digital option)	MPEG-2 / DVB (MP @ ML)
ENCRYPTED CHANNELS DEMODULATION	-	-	Using module CAM ('Common Interface')
ANALOGUE VIDEO	B/G/I/D/K/L	M/N/B/G/I/D/K/L	M/N/B/G/I/D/K/L
Li+ BATTERY	Included	Included	Included
DIMENSIONS	294 (W.) x 100 (H.) x 274 (D.) mm	294 (W.) x 100 (H.) x 274 (D.) mm	294 (W.) x 106 (H.) x 274 (D.) mm
Weight	4.9 Kg	5 Kg	5 Kg

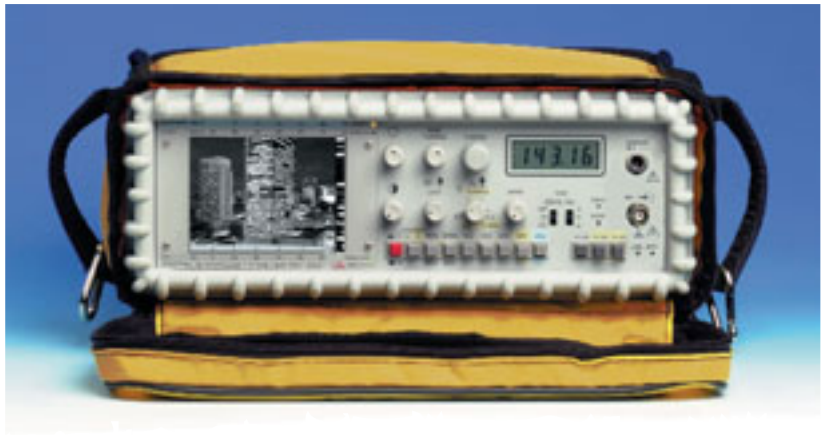
(*) Typical specification at calibration points

Low cost TV and Satellite Level Meter

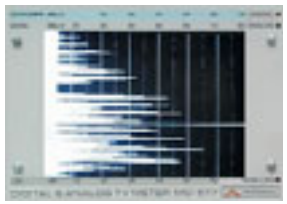
The **MC-577** is a low cost, portable and light instrument that provides the installer all the basic functions to install and verify analogue and digital systems.

It covers the terrestrial and satellite bands and can measure signal level, channel power and C/N ratio. It incorporates a high resolution Spectrum Analiser and a monitor to display television signals.

The instrumenent can be operated through internal batteries or from the mains. The batteries can be charged from the car lighter through the front panel.



- One RF input for Terrestrial and Satellite bands
- Easy to use
- Frequency range: 45 to 856 MHz on terrestrial and 950 to 2150 MHz on Satellite band
- High resolution Spectrum
- Analogue Audio/Video demodulation
- Battery charge from mains or car lighter

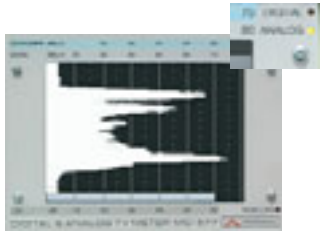


Spectrum analyser

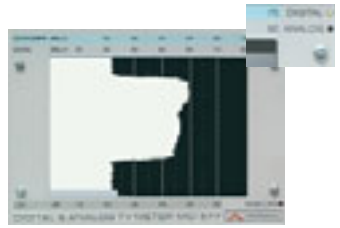
Monitor

Level measurement + synchronism

Power of digital channels



C/N analogue signals

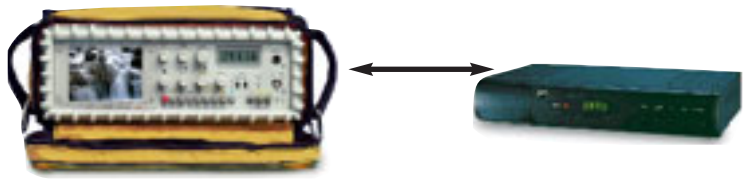


C/N digital signals

TV & Satellite basic level meter MC-360B

- Terrestrial frequency tuning (46 to 856 MHz) and Satellite (950 to 2050 MHz)
- One single RF input connector
- Analogue measurements and acoustic indicator of level measured.
- LNB supply: 13, 15 & 18V with 22 KHz switching signal
- Included rechargeable batteries

- Through the SCART, the instrument can be connected to a digital receiver. It is then possible to view the decoded image on the monitor.



Satellite hunter: identifies satellites and DVB-S services

The **PRODIG-1+** has been designed to guarantee the maximum number of installations with the best possible quality, thereby helping the installer to evaluate the results.

The instrument directly determines if signal quality is sufficient for good reception. This is done on the basis of the internal BER measurement and the signal / noise ratio (SNR).

The **PRODIG-1+** is a very easy to use instrument that guides the user through 3 steps, enabling the desired satellite to be located, guaranteeing its identification and accurately adjusting the receiver antenna to obtain the best possible signal quality.

Identification of up to 16 satellites

In IDENTIFICATION (2) mode, the equipment reads the information it receives from the satellite, presenting the orbital position and name of the service or satellite for a maximum of 16 satellites that can be programmed as the user deems appropriate.

Exclusive for one single satellite

It is very useful to program the channel plans according to the specific necessities of each application. This way, the instrument can incorporate the channel plans of different satellites so to be able to access directly to each one of the services.

1.- Detection

It works as a wide band detector indicating power of all satellites present on the trajectory of the antenna.

2.- Identification.

The instrument tunes to preset test points, reads the Transport Stream and displays the identification of the service on the display. It allows identification of one specific service or satellite. The BER measurement is presented in two different ways, as it displays "ber" when the quality is below DVB quality standards and "BER" when it is above it.

3.- Optimisation.

Based on measurements made on the demodulated signal user can optimise the skew and fine-tune the dish.

Rough Construction

The equipment is built into a tough ABS box with a fully watertight front panel.

The input connector is replaceable and the instrument is shipped with BNC and F connectors. The equipment includes a carrying bag with a belt, freeing the installer's hands for carrying out readings.

Detection of short circuits and protection

The equipment allows detection of LNB consumption. Outages in the cable or faulty LNB operation will be indicated by the equipment. It also has a short circuit detection feature.

Long operation time

The **PRODIG-1+** has been designed to allow continuous supply to universal LNB for over one hour with standard Ni-MH batteries and over 2 hours with Li-Ion batteries (OP-001-11).

The charging time is short; just one hour for a nearly-complete charge (3 hours with OP-001-11) and it can be made from the mains or from the car lighter adapter..

Automatic meter for terrestrial digital and analogue TV

The **PRODIG-2** is an instrument designed for the installation of Terrestrial TV systems without the need for any technical knowledge The instrument does not require any configuration by the user as it makes all the necessary calculations to determine the quality of the signal internally, for both analogue and digital channels, and just shows on the screen the final results.

Special attention has been given to the mechanical design to confer the maximum robustness. An only selector allows channel under test tuning and the selection of the rest of hidden functions, such as, selection of channel tables, external units supply, power-off mode, etc. The front panel, without connectors nor control keys, assures the maximum protection against dust, water, etc.

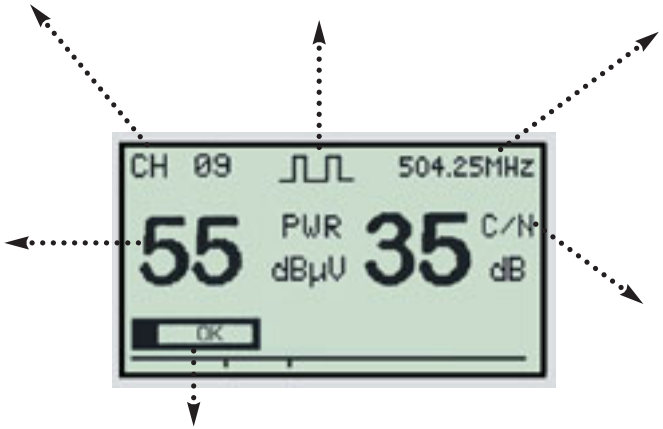
Channel under Test

This is the only parameter that can be directly selected. When selecting a channel all the measuring parameters will be adjusted automatically. This avoids any type of interpretation error and makes it extremely easy to perform measurements.

Automatic identification

The PRODIG-2 can identify automatically weather a signal is analogue or digital.

ANALOGUE DIGITAL



Level / Power measurement

When identifying the signal as analogue, the equipment is set to measure the Level. If signal is identified as digital, the equipment will measure channel Power automatically.

Digital signal measurement

Analogue signal measurement

Bargraph

The bargraph shows the level / power of the TV channel and the noise level. The OK indication appears when the measured level / power is within the recommended margins and the C/N ratio is greater than the recommended value.

Channel Frequency

It shows the frequency corresponding to the tuned channel. This is an indicative value only, since the tuning is made by channels only. The configuration menu permits to select different channel tables.

C/N ratio measurement

This is the most important measurement provided by this equipment in order to evaluate the signal quality.

6 dB test

The **PRODIG-2** incorporates an output specially designed for the 6 dB margin test, which is very important in digital TV installations, as it allows correct operation to be guaranteed with a safety margin over the threshold level.

External units supply

The **PRODIG-2** also enables external units, such as mast amplifiers, to be powered with voltages of 12, 15, 18 and 24 V.

Easy to use

One single control to select the channel, the rest is done by the instrument.

Accessories

MS-250

■ Satellite detector

* 950-2050 MHz frequency range
* -30 to +5 dBm margin
* Analogue indication
* Acoustic level indication
* Supply from set Top Box
* Voltage measurement

RP-050

■ IF satellite generator

* Generates three pilots for testing satellite TV networks prior to signal being available.
* RF levels: 90 & 105 dBµV
* Power supply included

NG-281/NG-282

■ Noise generators

* NG-281: from 5 to 1000 MHz, level 70 dBµV, flatness ± 2dB
* NG-282: from 20 to 2000 MHz, level 50 dBµV, flatness ± 3dB
* Power supply: Internal rechargeable batteries or external power adaptor

LN-370B

■ Low noise amplifier

* To increase by 20 dB's the dynamic range of the signal level meters

CV-245

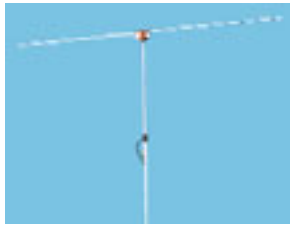
■ 2.4 GHz band converter

* Converts signals from ISM 2.4 GHz to IF satellite band
* Supply from the signal level meter

CV-589

■ 5.8 GHz band converter

* Converts signals from ISM 5.8 GHz to IF satellite band
* Supply from the signal level meter



AMC/1

■ Master Aerial

* Connected to any Field Strength meter is able to find the intensity of the electric field in any location.

PROMAX ELECTRONICA, S.A.
Francesc Moragas, 71 * 08907 L'HOSPITALET * SPAIN
Tel: (+34) 93 260 20 02 * Fax: (+34) 93 338 11 26 * e-mail: sales@promax.es * www.promax.es