

will'tek

Willtek

4032 STABILOCK

Testing without limits

Cellular & cordless phones
Base stations
Production & service

Unique Radio Test Flexibility in a Small Package

Digital Systems For

GSM/PCN/PCS
CDMA/IS-95
DECT
IS-54/IS-136
TETRA
TERAPOL
PDC

Fast Speed

Automatic and complete GSM mobile test in under 60 seconds. Switching between most systems is easy including GSM and PCN/PCS.

High Accuracy

Accurate measurements ensure repeatable, confident test results. RF Cellular Power measurement is typically 5%.

Extending Capability

New systems capability includes DECT for fixed and portable parts, CDMA base station testing, TETRAPOL, as well as TETRA, the new trunking standards.

Fast Spectrum Analyzer

Powerful Spectrum Analyzer option from 0.4 MHz to 1 GHz and up to 2.3 GHz with the Frequency Extension option. Functions include Autotuning, Zoom and GSM trigger mode.

Simple Automation

Creating IEEE-488 or AUTORUN programs is easy using a PC editor package, including syntax checks, library, memory and program handling.

The STABLOCK 4032 Series meets the needs of service organizations and mobile radio manufacturers worldwide.

With over 7 major digital systems and over 30 analog formats available, universal coverage of radio systems is provided.

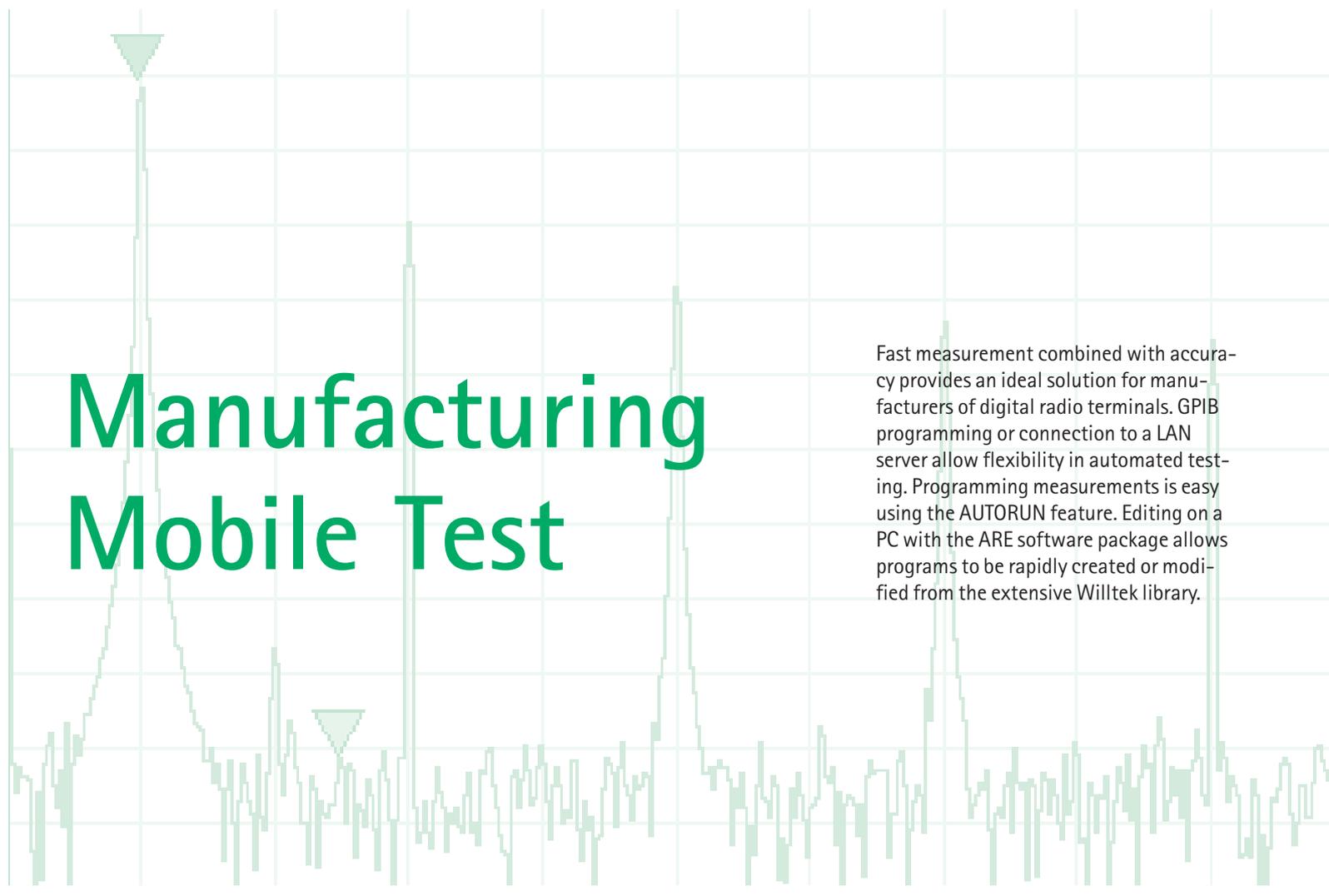


Using plug-in modules and memory cards, the 4032's modular design ensures easy upgrading. Modularity preserves the investment value and allows new systems to be tested as radio technologies mature or requirements are modified. With the 4032's consistent screen layout, GPIB commands, and simple memory card software installation, most technicians will require little training to use new modules and features.

Flexible Modular Structure

Service Tool Kit

The compact design provides major benefits in productivity, saving both space and weight over competing solutions. The large easy to read screen is invaluable for manual operation and the on-screen meters give clear indication when adjusting equipment remotely. Clear layout, softkeys and cursor keys provide an intuitive user interface.



Manufacturing Mobile Test

Fast measurement combined with accuracy provides an ideal solution for manufacturers of digital radio terminals. GPIB programming or connection to a LAN server allow flexibility in automated testing. Programming measurements is easy using the AUTORUN feature. Editing on a PC with the ARE software package allows programs to be rapidly created or modified from the extensive Willtek library.

The 4032 provides base station testing for IS-54, NAMPS, D-AMPS, IS-136, GSM, CDMA, TETRA or ETACS. In many cases base station testing can be automated using custom AUTORUN programs. The compact, lightweight design makes life easier for installation and maintenance crews in confined base stations.



Convenient and Complete Base Station Testing

Testing without limits

Network Maintenance

With a sector or channel down, lost revenue increasing and customers becoming frustrated – there is no time to lose. The fast set up of the 4032 speeds up troubleshooting. The accurate and clear display allows fast and consistent measurements. Alignment of I and Q is simplified using the constellation display. Min./max. average statistics make tuning more convenient. The fast Spectrum Analyzer (up to 2.3 GHz) provides in- and out-of-band measurements for identifying spurious signals or intermodulation products. Optional tracking generator provides cable fault indication.

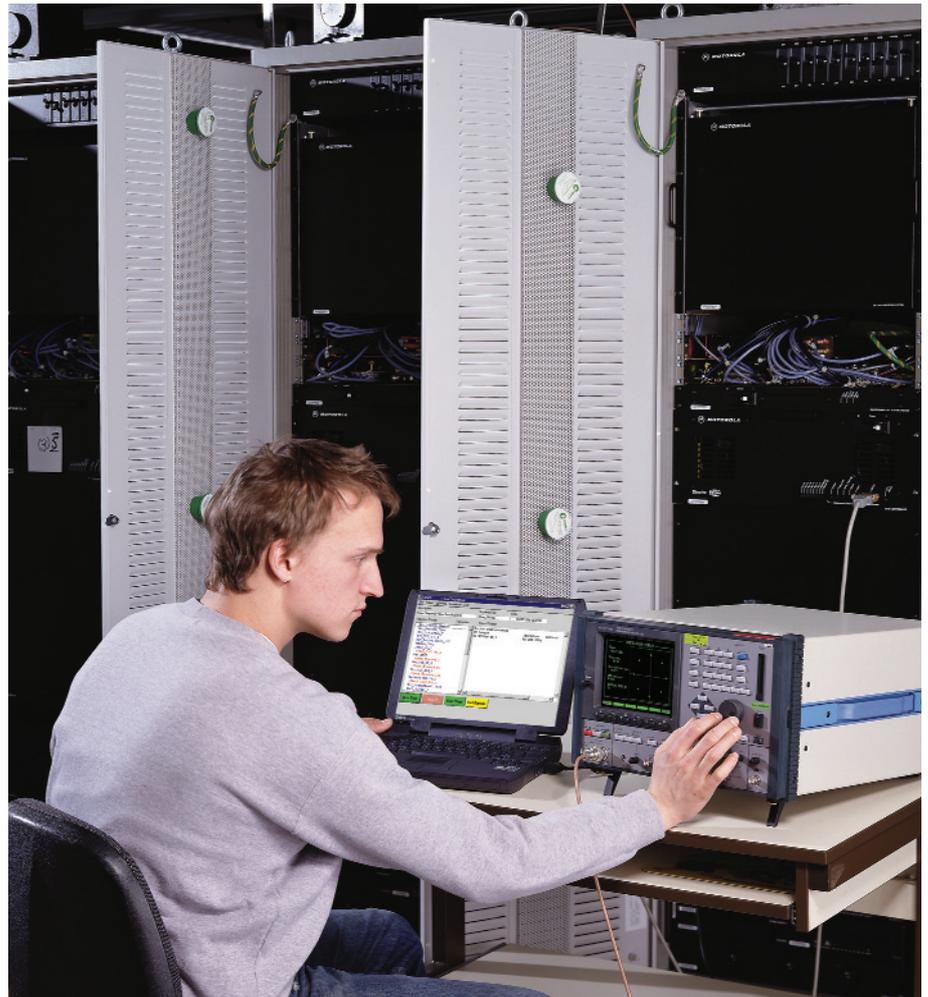
CDMA Testing Simplified

Special troubleshooting tools are available for CDMA base stations at 800 MHz or 1900 MHz. The constellation display allows the symmetry of the symbols to be viewed, whilst the Channel Versus Power screen displays the pilot and any traffic channels. For many measurements including PN search functions only an RF input is required, rather than the additional connection of Even Second Clock.

Measurements include channel power, frequency tolerance, waveform quality rho, carrier feedthrough, vector magnitude and pilot time offset. In the code domain the timing, power and phase of each code channel can all be measured.

Fast Constellation Display

Viewing the phase error, magnitude, RMS vector error, power and DP/Symbol helps identify NADC/ IS-54/IS-136 base station errors.



Clear Display

Bring an analog feel to digital measurements. Measurements are graphic and numeric for fast analysis.

Adjacent Channel Power

Numeric display provides simple analysis of channel, adjacent and alternate adjacent channel power levels.

Comprehensive Capability from Hardware and Software Options

GSM Measurements (MS)

Transmitter power
Phase and frequency error
Burst shape (power vs time) and burst length
Modulation spectrum
TX tests on mobiles in test mode
Bit error ratio (BER)
Paging sensitivity
Measurement report of MS
Min./max./average statistics
Audio RMS

CDMA Measurements (BS)

Channel power
Code domain power
Code domain timing
Code domain phase
PN offset search
Waveform quality (rho)
Error vector magnitude (constellation display)
Phase error
Pilot time offset
Carrier feedthrough
reverse channel signaling

TETRA Measurements (MS, BS)

Power vs time
Constellation display
Modulation Spectrum
Frequency error
Vector error
Residual carrier power

IS-136 Measurements (MS)

Constellation display (graphic/numeric)
Modulation spectrum
Burst power with time alignment
ACPM
Bit error ratio (BER) 800 and 1900 MHz systems
Analog/Digital Control CH to Analog/Digital TCH
Cross-band handover checked
MAHO functionality
ACELP or VSELP Audio loopback

IS-54/NAMPS (BS)

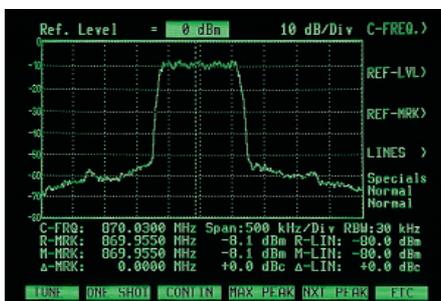
Power measurement
Digital and analog operation (IS-54)
Spectrum analyzer
Constellation display (IS-54)
Adjacent and alternate adjacent channel power

DECT Measurements (FP, PP)

Power level (NTP)
Frequency error
Frequency deviation
Frequency drift
Power/time template with zoom mode
Adjacent Channel Power

Measurements (ACPM)

Packet timing jitter
Reference stability
BER – Bit Error Ratio
Audio measurements



CDMA Spectrum Analyser



IS-136 measurement



DECT: Portable part test screen

Logical Ease of Use

High contrast, high intensity display shows measurements in all light conditions.

High sensitivity in range -130 dBm to $+13$ dBm depending on use of **RF** or **RF DIRECT** Socket.

Synthesizer provides low noise (4 Hz rms at 500 MHz) for accurate mobile testing, and allows use of optional **Adjacent Channel Power Meter**.

Memory cards provide easy **AUTORUN** loading and storage of results.



Precise power measurement 4% 20 to 500 MHz, 5% up to 1 GHz.

RF output level accuracy typically 0.3 dB below -7 dBm.

Standard Oscilloscope up to 20 kHz with trigger modes plus auto, norm, one shot, freeze and time measurements.

Integrated Spectrum Analyzer provides 0.4 MHz to 1 GHz or 2.3 GHz, with optimized sweep widths 200 kHz, 2 MHz or 10 MHz.

Ordering Information for major options

See Data Sheets for full range of modules for analog and digital systems.

STABLOCK 4032	108 802
RF Frequency Extension 2.3 GHz	248 295
GSM 900/1800/1900	
MS Test Package	248 296
incl. STABLOCK 4032	
RF Frequency Extension 2.3 GHz	
GSM hardware option	
Spectrum Analyzer	
GSM 900/1800/1900 test software	
DECT Package	248 255
incl. STABLOCK 4032	
RF Frequency Extension 2.3 GHz	
DECT module	
DECT FP/PP test software	
CDMA BS Test Package	248 302
incl. STABLOCK 4032	
Hight Speed Spectrum Analyzer	
CDMA module	
CDMA 800/1900MHz test software	
IS-136 MS Test Package	248 304
incl. STABLOCK 4032	
RF Frequency Extension 2.3 GHz	
D-AMPS module + Data module	
IS-136 MS test software	
BATE AMPS BS Test Package	248 198
BATE ETACS BS Test Package	248 144

New Packages for STABLOCK 4032:

TETRA-380 MS Package	248 307
incl. TETRA module	
Duplex + IQ-380	
TETRA MS test software	
TETRA/FEX MS Package	248 308
incl. TETRA module	
RF Frequency Extension 2.3GHz	
TETRA MS Test software	
TETRA/Std. Packages BS Test	248 365
incl.: TETRA Module	
Duplex + IQ 380	
TETRA BS test software	
TETRA/FEX Packages BS Test	248 366
incl.: TETRA Module	
RF-Frequency Extension	
TETRA BS test software	
Spectrum Analyzer Option	

General Data

Weight	18.5 kg
Power Supply	94 to 132 V or 187 to 264 V AC
Operating temperature	0° C to 45° C
Storage temperature	-40 to +70°C
Relative humidity	90%
Size	230 x 375 x 486 mm

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Note: Specifications, terms and conditions are subject to change without prior notice.

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