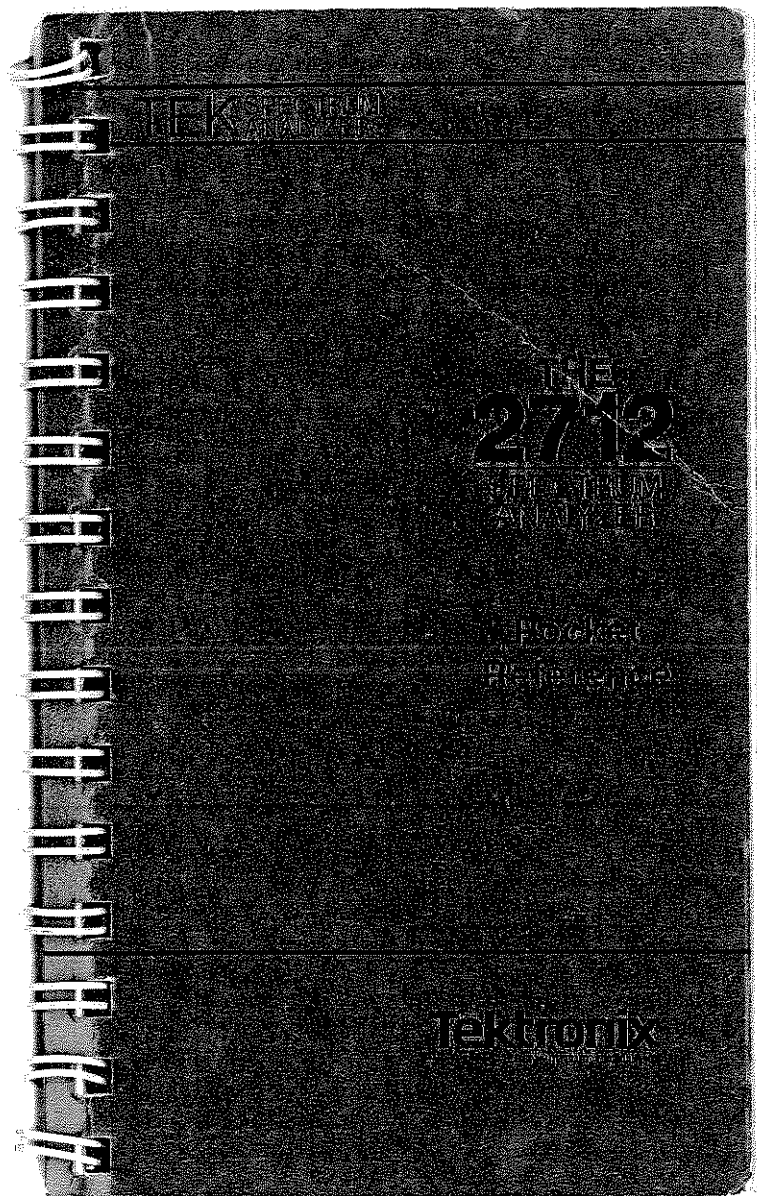




TEK SPECTRUM
ANALYZERS

070-8297-01
Product Group 2E

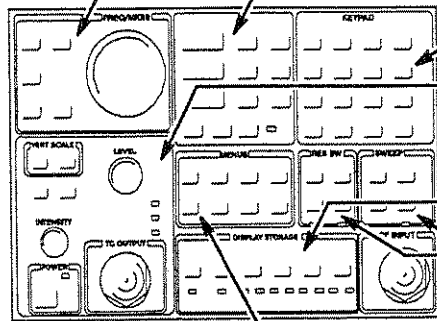
THE
2712
SPECTRUM
ANALYZER

**Pocket
Reference**

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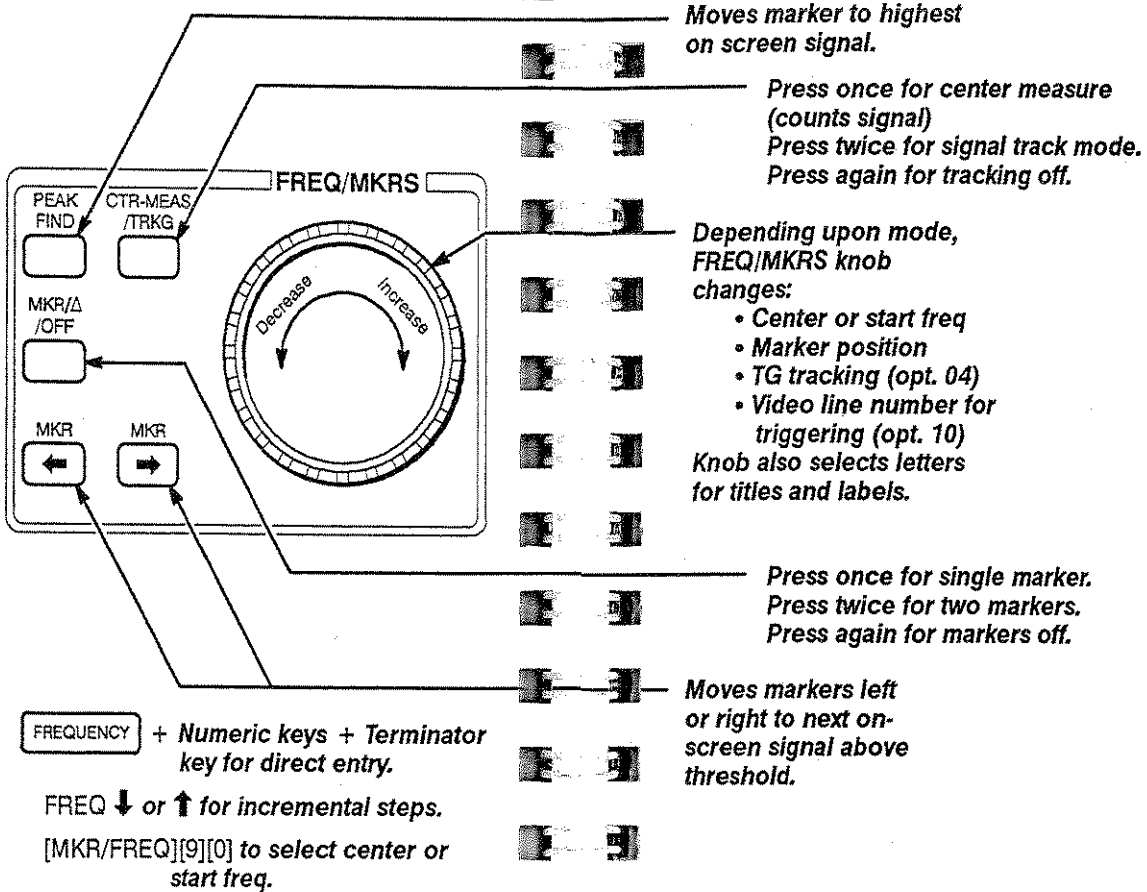
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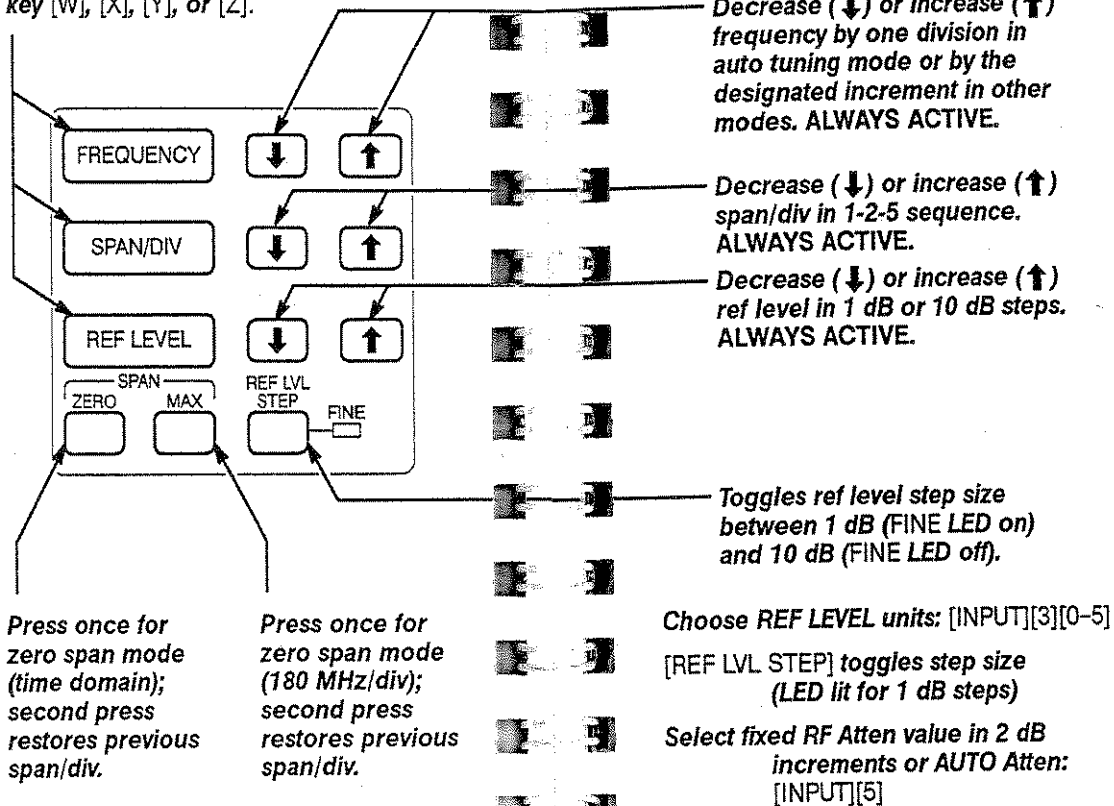
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Frequency/Markers Controls

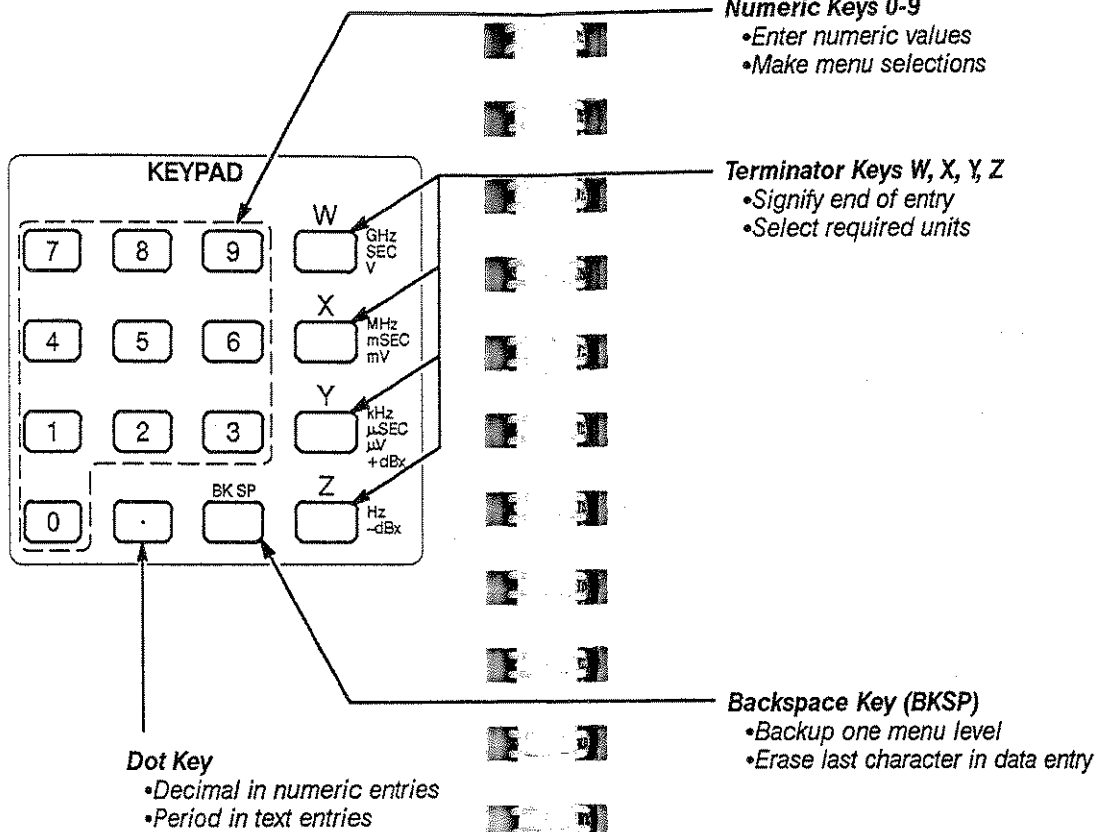


Fundamental Controls

Selects frequency, span/div, or ref level for immediate entry. Enter value from keypad and end entry with terminator key [W], [X], [Y], or [Z].



Numeric Keypad



Vertical Scale, Demodulator, TG, and Display Controls

Initiates screen plot

Toggles vertical scale between LIN and LOG modes.

Press repeatedly to select LOG vertical scales in 10-5-1 dB sequence.

Controls volume of AM or FM demodulators.

Inner knob controls:

- "Oscilloscope" trigger modes
- Sweep position (manual scan mode)
- TG variable level (when activated)
- Picture framing (video monitor mode).

Toggles on-screen readouts on and off.

INTENSITY

POWER

ON OFF

Toggles power on (LED lit) and off.

Varies CRT brightness.

LEVEL

AM VOL

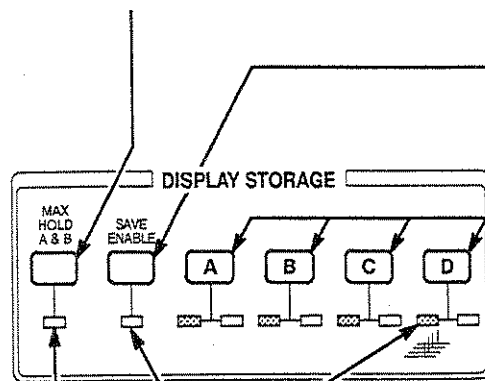
FM VOL

TG OUTPUT

Tracking generator output connector and indicator (Option 04 only). LED is lit when tracking generator is on.

Display Storage Controls

Activates MAX HOLD mode. In MAX HOLD mode the A & B registers (if active) retain the largest signals observed.



Lights when
MAX HOLD
is active.

Lights when
waterfall mode
is active.

Lights when
SAVE ENABLE
is armed.

To enter waterfall mode:

- First clear the A, B, and C registers
- Press [SAVE ENABLE][D]

To exit, press [SAVE ENABLE][D]

Press to arm SAVE ENABLE, then
press register A, B, or C to save or
clear (unsaved).

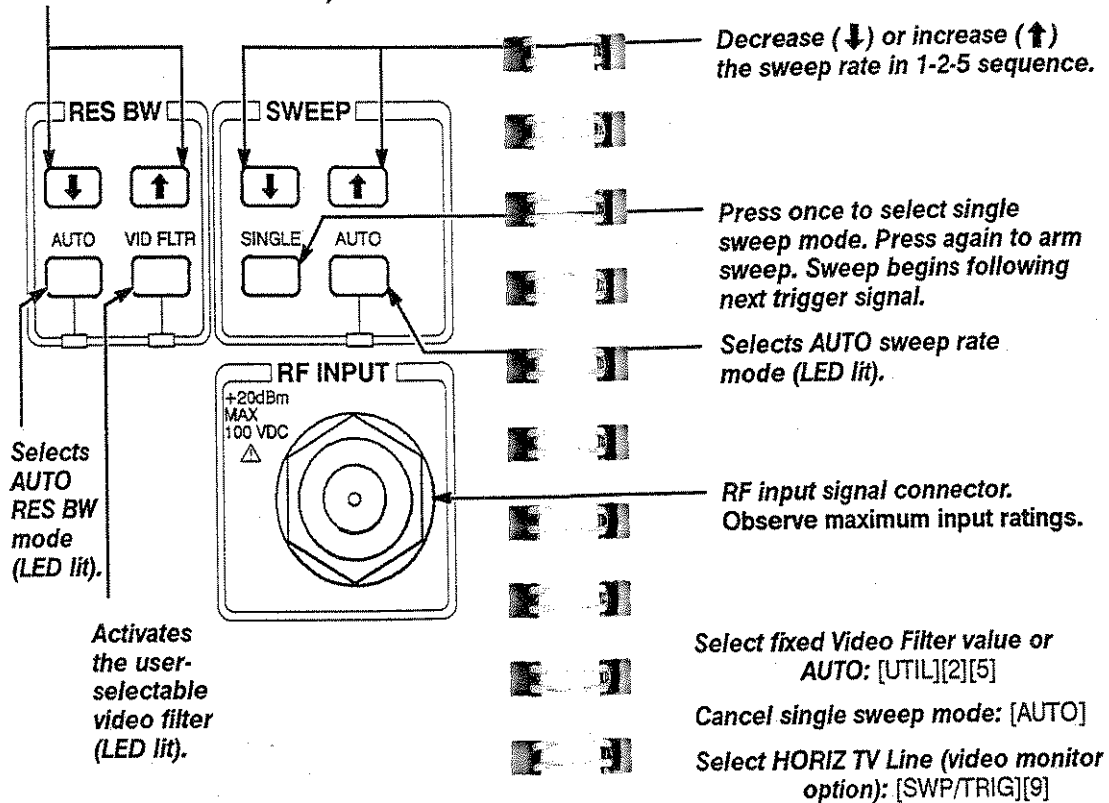
Toggles the indicated register (A, B,
C, D) on or off, and saves (or
clears) the display in the selected
register when SAVE ENABLE is
armed. Individual waveforms
cannot be saved in the D register.

Green LEDs
light when
A, B, or C
register
contains a
saved
waveform,
whether
displayed or
not.

Red LEDs
light when
indicated
register (A,
B, C, D) is
displaying a
waveform.

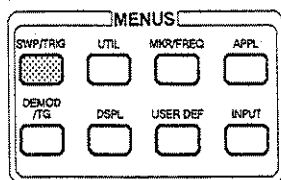
Resolution BW and Sweep Controls

Decrease (↓) or increase (↑)
the RBW filter bandwidth (or just
the EMC filters in QP mode).



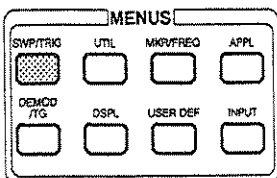
TRIGGER Menu

- 0 FREE RUN
- 1 INTERNAL
- 2 EXTERNAL
- 3 LINE
- 4 TV LINE
- 5 TV LINE



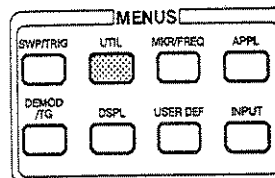
SWEEP Menu

- 6 SWEEP RATE
- 7 MANUAL SCAN POSITION
- 8 SYNC POLARITY
- 9 SETUP TABLE
 - Configures HORIZONTAL TV LINE
 - Triggering (Video monitor option only)
 - 0 Continuous
 - 1 Knob selectable
 - 2 Keypad entered line
 - 3 Keypad entry
 - 4 TV line standard



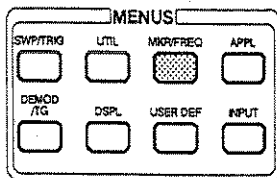
UTIL Menu

- 0 INITIALIZE INSTR SETTINGS
- 1 STORED SETTINGS
 - 0 Last power-down
 - 1 Factory default power-up
 - 2 User defined power-up
 - 3-39 Stored setting/display registers
- 2 KEYPAD ENTERED SETTINGS
- 3 NORMALIZATIONS
- 4 SYSTEM CONFIGURATION
 - 0, 1, 2 Comm port, screen plot, and printer config
 - 3 Instrument config
 - 4 Real-time clock setup
 - 5 Stored settings protect
 - 6, 7 File system
 - 9 Installed options
- 5 INST DIAGNOSTICS/ADJUSTMENTS
 - [UTIL][5][2][2] for screen alignment pattern
- 6 SERVICE REQUEST
- 9 MORE
 - Print readouts (RS-232 option only)



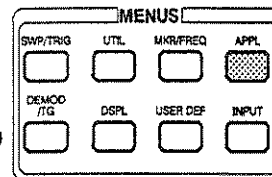
MKR/FREQ Menu

- 0 THRESHOLD
- 1 PROGRMD TUNING INC
 - 0 Center freq
 - 1 Marker freq
 - 2 Keypad entered inc
 - 3 Keypad entry
 - 4 Return to auto
- 2 KNOB FUNCTION
- 3 MARKER TO REFERENCE LEVEL
- 4 MOVE MARKER TO NEXT PEAK
- 5 TRANSPOSE MARKERS
- 6 MARKER START/STOP
- 7 FREQUENCY START/STOP
- 8 TUNING INCREMENT
 - Auto, progrmd, or tabular
- 9 SETUP TABLE
 - 0 Center/start freq
 - 1 Counter resoln
 - 2 Tabular tuning tables
 - 3 Freq offset
 - 4 Freq offset mode



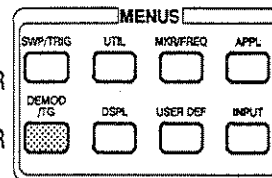
APPL Menu

- 0 BANDWIDTH MODE
- 1 CARRIER TO NOISE
- 2 NOISE NORM'D
- 3 SIGNAL SEARCH MENU
- 4 OCCUPIED BW
- 7 FM DEVIATION MODE
- 9 SETUP TABLE
 - 0 db down for BW mode
 - 1 Norm BW for c/n
 - 2 Noise norm'd BW
 - 3 Percent occupied BW



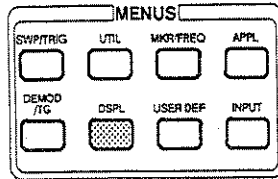
DEMOD/TG Menu

- 0 OFF
- 1 AM DEMODULATOR
- 2 FM DEMODULATOR
- 3 BROADCAST (AM) VIDEO/ SATELLITE (FM) VIDEO SELECTION MENU
 - (Video monitor option only)
- 4, 5, 6, 7, 8 TRACKING GENERATOR CONTROLS
 - (Tracking generator option only)
- 9 VIDEO MONITOR SETUP
 - (Video monitor option only)



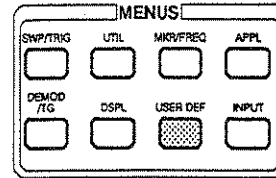
DSPL Menu

- 0 DIGITAL/
ANALOG
- 1 ENSEMBLE
AVERAGING
 - 1 Initiate
averaging
 - 2 Terminate
averaging
 - 3, 4, 5, 6 Max, Mean, Min, and Min/Max
 - 7 Number of averages
 - 8 Save results in display (A, B, C)
- 2 B, C MINUS A
- 3 B, C MINUS A OFFSET TO (Center or Top)
- 4 ACQUISITION MODE (Peak or Max/Min)
- 5 TITLE MODE
- 6 GRATITUDE ILLUMINATION
- 7 DISPLAY SOURCE (Internal (AM) or
External)
- 8 DISPLAY LINE
 - 1 On/off
 - 2 Value entry
 - 3 Display line to marker
 - 4 Limit detector
- 9 MIN HOLD



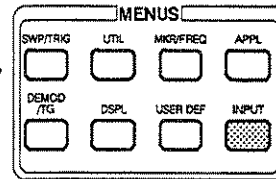
USER DEF Menu

- 0-8 USER
DEFINED
PROGRAMS
- 9 USER DEF
PROG
UTILITIES
 - 0 Acquire key
strokes
 - 1 Title edit
 - 2 Wait for end of sweep
 - 3 Display message
 - 4 Pause for "USER DEF" key
 - 5 Continuous execution
 - 6 Store
 - 7 Delete
 - 8 Protect



INPUT Menu

- 1 PREAMP
- 2 50 OHM DBM/
75 OHM DBMV
- 3 REF LEVEL
UNIT (dBm,
dBmV, dBV,
dBμV, dBμW, or
dBμV/meter)
- 4 1ST MXR INPUT LVL (-20dBm to
-50dBm, -30dBm nominal)
- 5 RF ATTENUATION
- 6 EXTERNAL ATTEN/AMPL
- 9 CAL SIGNAL @ 100MHZ -30DBM



Control Ranges

Frequency range: 9 kHz to 1.8 GHz

Span/div range: 1 kHz to 180 MHz plus zero span

Ref level range: +20 dBm to -70 dBm or equivalent

RES BW filters: 300 Hz, 3 kHz, 30 kHz, 300 kHz, and 5 MHz

All RES BW filters are 6 dB width, $\leq 7:1$ shape factor

Option 12 replaces 300 Hz filter with 200 Hz filter and adds 1 kHz, 9 kHz, 120 kHz, and 1 MHz

Option 14 adds 1 kHz, 10 kHz, 100 kHz, and 1 MHz

RF attenuation range: 0 dB to 50 dB in 2dB steps

Vertical scale: 10/5/1 dB per division plus linear

Video filters: 1/100 of the RES BW in AUTO mode, or 3 Hz to 300 kHz plus WIDE in 1-3 sequence

Sweep rate: 1 μ sec/div to 2 sec/div (settings $\leq 100 \mu$ sec/div require an analog display)

Trigger modes: Free run, Internal, External, AC line, TV line, TV field, Single sweep (option 10 required for selectable TV line triggering)

Tracking generator (option 04):
Frequency: 100 kHz to 1.8 GHz
Level: -48 dBm to 0 dBm in 0.1 dB increments and variable control