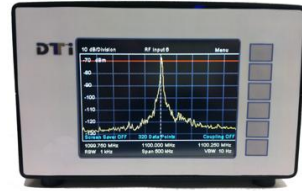


Monitor your wideband, SCPC and Beacons remotely with the affordable DRSM line of monitors. Your 1 MHz to 2500 MHz monitoring solution!



## The DRSM Line of Carrier Monitors with Color Touch Screen Display Offer 3 Models Covering Frequency Range of 1 MHz – 2500 MHz

DTi's New Combination Display and Remote System Monitor provide an economical compact solution for local and remote signal monitoring & analysis. Perfect for identifying and recording signal interference or verifying known signals from one or multiple remote locations. The DRSM-2500D is an excellent solution for onsite and offsite troubleshooting, monitoring, and basic analysis.

The Model DRSM-2500D is the ideal solution for accurate local or remote monitoring of carriers from 1 MHz to 2500 MHz. The DRSM-2500D's 5.7" TFT touch screen display makes local monitoring of RF signals easy. Your Engineer or Technician can quickly monitor or troubleshoot a problem locally. With just a push of a button, the DRSM-2500D can be switched to remote TCP/IP connection and be monitored and controlled in real time from a remote location on your local network by using a standard PC and the DTI Graphical User Interface. The DTI Graphical User Interface is "plug and play". The Ethernet RJ-45 port provides a network connection to your company's LAN/WAN or other IP network resource. The DRSM-2500D is an extremely flexible and cost-effective way to network-enable one or many DRSM-2500D units and remotely monitor them from a central location.

### Technical Specifications

#### Frequency Coverage:

DRSM-1000D	1 MHz - 1200 MHz
DRSM-2150D	900 MHz - 2200 MHz
DRSM-2500D	1 MHz - 2500 MHz

#### Span Width:

0 - 500 MHz / Variable

#### Resolution Bandwidth:

3 MHz, 1 MHz, 300 kHz, 100 kHz, 10 kHz, 1 kHz

#### RF Sensitivity:

3 MHz to 100 kHz RBW  
Exceeding -100 dBm typical  
1 kHz and 10 kHz RBW  
Exceeding -120 dBm typical

#### Reference Levels:

Selectable -20 to -120 dBm in 2, 5, or 10 dB/Div steps

#### Reference Level Scale:

2, 5, & 10 dB/Div selectable

#### Dynamic Range:

60 dB Logarithmic @ 10 dB  
40 dB Logarithmic @ 5 dB  
20 dB Logarithmic @ 2 dB  
(Resolution per division on Application Window)

#### Amplitude Accuracy:

+/- 1 dB typical

#### Frequency Accuracy:

+/- 1 kHz typical

#### Inputs:

Dual input standard, Quad input Available

#### Input Connector:

50 ohm BNC female

#### Size:

8.5" W x 5.25" H x 15" D

#### Weight:

8 lbs

#### Power Requirements:

85 - 265 VAC 50/60 Hz  
12VDC (Option)

#### Display:

5.7" TFT touch screen  
DTI Graphical User Interface

#### 5.7" TFT Touch Screen



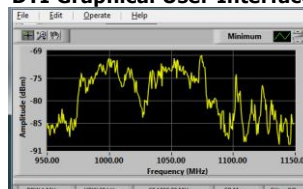
### Features & Benefits

- Tuning and sweep accuracy w/ DIGISWEEP
  - Increased input sensitivity!
  - Center frequency tuning
  - Multiple input options
  - Spurious Frequency Offset
  - 6 resolution bandwidths 3 MHz to 1 kHz
  - Variable data point resolution
  - Variable reference levels
  - Variable span width
  - Variable sweep rate / Single sweep mode\*
  - Video Bandwidth Filtering
  - Crosspol for Vertical & Horizontal peaking\*
  - Instant ZERO span
  - Peak search and center frequency tune
  - Coupled and uncoupled RBW selection mode
  - Waterfall mode\*
  - Waveform mask alarm feature\*
  - Alarm triggered/event triggered recording\*
  - Comparative mask / template mode\*
  - Email alerts / alarms to your Cell or PC\*
  - Ethernet ready, internet ready
  - Optional USB connection for remote monitoring
  - Unlimited ability to save and recall user setups\*
  - Playback with event cues\*
  - Autotune feature for monitoring multiple signals (one at a time)\*
  - User defined averaging & mean filter features\*
  - contact DTi for your application
- \*DTi Graphical User Interface only

### Applications

- Teleport Carrier Monitoring
- Broadcast TV Stations
- Monitoring Oil Rig Data Carriers
- Satellite News Gathering
- Portable Fly-Aways
- Amateur Radio Applications

### DTI Graphical User Interface



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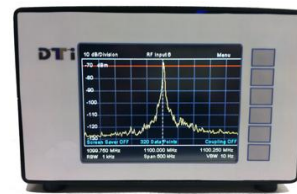
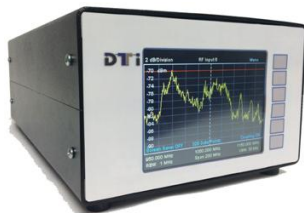
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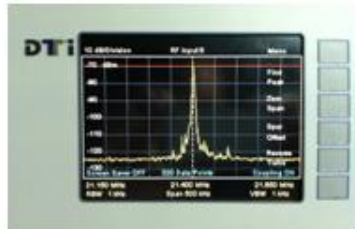
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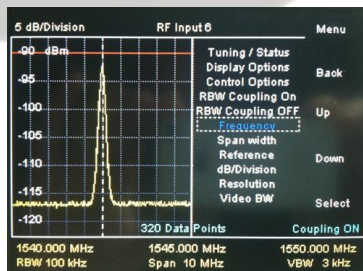
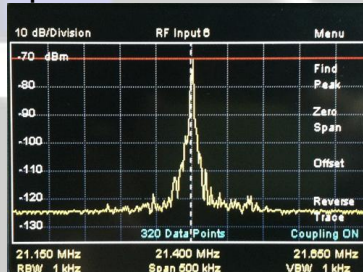
## The DRSM features a 5.7" Color Touch Screen Display & Tactile Buttons for Front Panel Control

### • Display Operations •



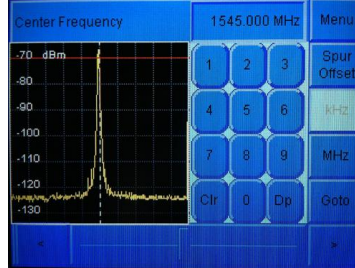
The DRSM operates with a combination of six tactile buttons and a touch screen display. The DRSM display screen is a touch screen where functions can be selected directly from the screen. Touching the display over desired function will split the display and present a selection menu on the right side

### • Split Screen Menu •



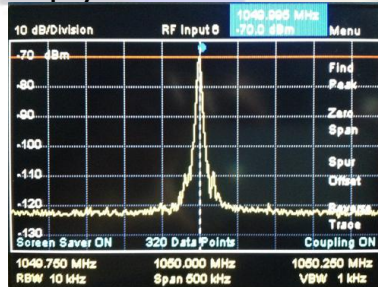
The DRSM display screen is a touch screen where functions can be selected and modified by touching desired setting to change. Touching the display over desired function will split the display and present a selection menu on the right side. The sweep will be displayed on the left and a drop down menu will be on the right.

### • Frequency Tuning •



Selecting Frequency will bring up a numeric keypad where the desired center frequency is entered. The DRSM will tune to desired frequency and switch to the DRSM display screen. In addition, a frequency tuning slider and frequency bump up/down buttons are also available. The Bump Feature bumps the frequency in 1/10 increments of the current span

### • Display Features •



**Find Peak** button presents a box that displays the frequency and signal strength of the highest peak on the display.

**Zero Span** to set the start and stop frequencies to the center frequency.

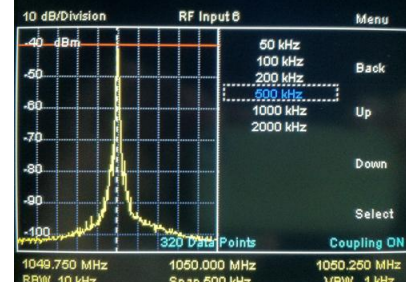
**Spur Offset** button is used to help determine if a signal is internally generated or harmonic of input signal at maximum sensitivity.

**Reverse Trace** button and display will swap the frequency readout from displaying left to right to display right to left.

**Sweep steps** of 320, 256, 128, or 64. Smaller sweep steps increases sweep rate with less resolution of the sweep trace.

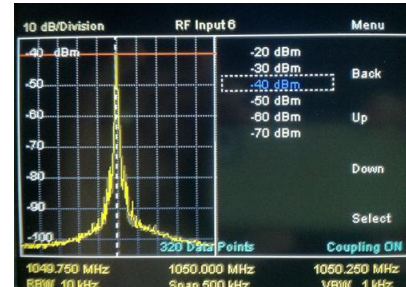
**Control Options** are selected to allow the DRSM to be controlled by the LOCAL display, a USB connection, or via a TCP/IP connection.

### • Variable and Selectable Span •



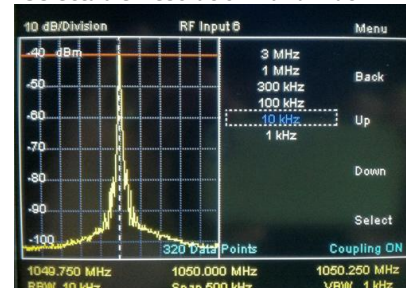
Touching the display screen over the Span indicator brings up a split screen display with a drop down selection of span widths from 50 kHz to 3 MHz depending on the resolution band with setting.

### • Selectable Reference Level •



Touching the display screen over the dBm graph at the left side of the display brings up a split screen display with a drop down selection of Reference levels depending on the setting of the dB/Division setting.

### • Selectable Resolution Bandwidth •



Touching the display screen over the RBW indicator will bring up a split screen display with a drop down selection of resolution bandwidths from 1 kHz to 3 MHz.

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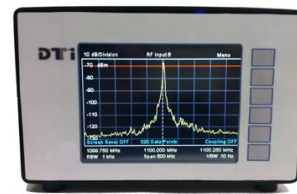
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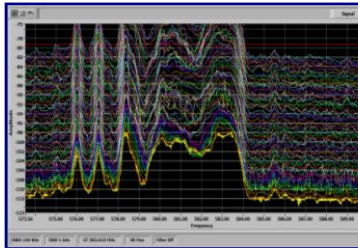
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## DRSM Models with PC or Linux DTi GUI - 1 MHz – 2500 MHz

### • Waterfall mode •



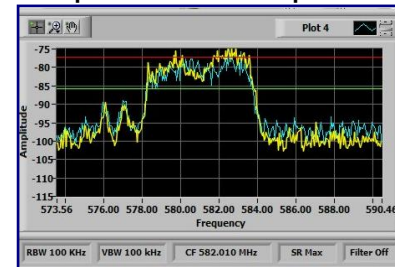
Standard analyzer mode only show a changing snapshot of the current signal RF energy, waterfall shows a scrolling spectrogram, a 2-d plot of frequency vs time. Waterfall plots are a convenient way of viewing a time history of your data. Each successive measurement record is plotted along the z-axis making it easy to see trends in the data.

### • Auto Tune Feature •



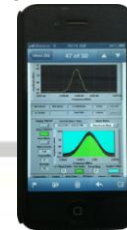
Allows the user to define multiple setups of IP location, RF switch inputs, center frequency, reference level, span width etc... This is an excellent tool for monitoring both multiple locations (Remote Carrier Monitors / locations) and multiple RF inputs and center frequencies setups automatically. Allows up to 25 IP / locations and / or user defined setups.

### • Comparative mask & template •



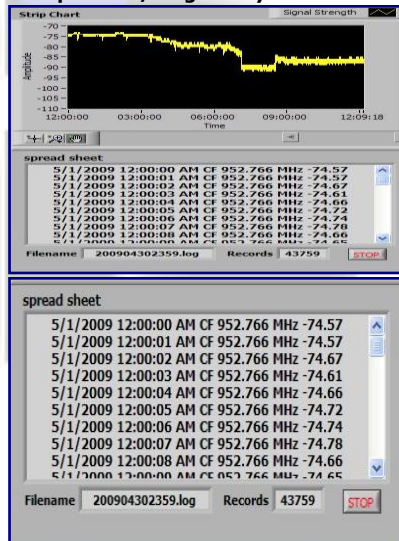
Allows the user to save and recall template Mask for easy signal comparison & verification.

### Email alerts/ alarms to Mobile Device or PC •



Software allows email alarms or alerts be sent instantly to notify the user of interference, loss of signal or any number of event triggered signal problems

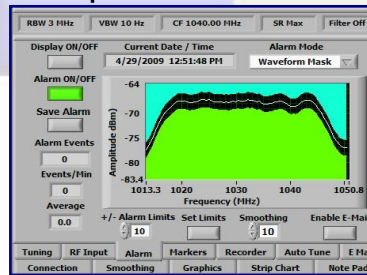
### • Strip Chart / Log Utility •



The strip chart panel allows a user to monitor the amplitude of a selected signal and display the amplitude on an amplitude vs. time strip chart. The user can then recall the data for analysis.

The Strip charting log utility allows for recording of center frequency amplitude. Events are recorded and presented on time based event chart. Additional logging feature allows for tab-delimited file that can be imported into your favorite spreadsheet program. The log files can be automatically saved and restarted on a daily basis and pulled up later for review of signal performance.

### • Envelope Alarm •



SENDS EMAILS to your PC or Phone / STARTS Event triggered recording  
 - The alarm panel offers two alarm solutions, waveform mask (represented above) and the high / low limits option. The waveform mask option allows a user to select an exact envelope of concern around the signal of interest. The user can adjust and select the desired sensitivity by selecting and manipulating the +/- Alarm Limits control variable. Selecting a smaller or larger number will affect the monitor area around the signal. The high / low alarm function allows a user to select a box area to monitor. With either alarm scenario the alarm will activate the alarm visual indicators and if the user has selected the option, will then either start a recording or send an email notification based on the criteria determined by the user.

- **Comparative Mask mode** - Allows a user to save & recall a sweep for comparison or analysis
- **Single Sweep mode** - Allows the user to select from standard sweep, variable sweep or single sweep mode for ultimate convenience
- **Variable data point Resolution** - VDR allows the user to set the display point resolution allowing faster sweep rates
- **Waterfall mode** - Waterfall shows a scrolling spectrogram, a 2-d plot of frequency vs. / time
- **Video Bandwidth Filter** - The video bandwidth allows the user to select multiple video bandwidth filter settings / 10 Hz-100 kHz
- **Variable Sweep Rate** - The sweep rate feature allows the user to select various sweep rate settings / 0 - 10 Seconds
- **Instant Zero Span** - One button activation for quick amplitude measurement
- **RBW Coupling** - Selectable RBW coupling allows for optimum span setting / can be disabled for free span selection
- **IP Utility Toolbox** - New IP toolbox for quick IP set up /configuration and network identification

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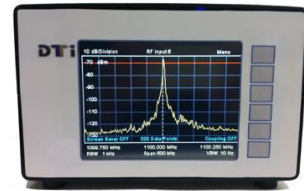
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## Valid Options

### Base Model:

DRSM1000D 1 MHz - 1200 MHz  
 DRSM2150D 900 MHz - 2200 MHz  
 DRSM2500D 1 MHz - 2500 MHz

### Inputs:

2 Dual standard, 50 ohm BNC female connector  
 4 Quad input, 50 ohm BNC female connector

### Monitor & Control:

E Ethernet 10/100 Base T with DTi Graphical User Interface  
 U USB with DTi Graphical User Interface  
 A Both Ethernet and USB

### Required Power:

AC 85 - 265 VAC 50/60 Hz  
 DC 12VDC  
 AD Both 85 - 265 VAC 50/60 Hz & 12VDC

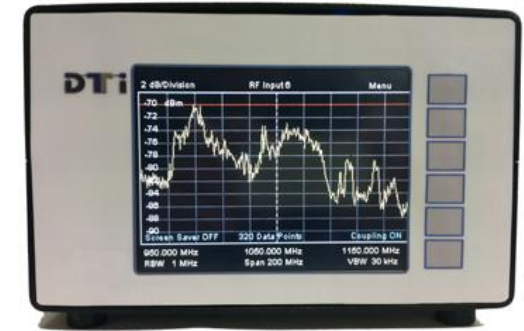
### Graphical User Interface (GUI):

W Windows  
 L Linux

### Part Numbering:

Typical part number

DRSM2500D-2E-AD-W



Base Model	Inputs	Monitor & Control	Input Power	GUI
DRSM1000D DRSM2150D DRSM2500D	2, 4	E, U, A	AC, DC, AD	W, L

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