Channel Scanner, Option 27

The channel scanner option gives the user another convenient way to view power. The focus of the measurements made with this option is on channelized communication systems such as cellular systems, land mobile systems, maritime communication systems and the like. In figure 5, signals are being measured in the FM broadcast band. By setting the channel width and channel spacing almost any sort of communications system can be viewed. Up to 20 channels can be viewed simultaneously. Each channel can be displayed in both frequency and channel number. When you use the Signal Standard to select a standard, the channel span is automatically setup according to the standard. Both the old and the new platform allow you to change the channel step size and the channel span. Both instruments can display the power level for all the channels in a graph format and in a text format.



Figure 19. Channel Scanner in the D-platform

The channel scanner in the Super H products allows the user to customize each channel to display completely different signal types in each channel. For example, channel 1 could be a TV channel's video signal, channel 2 could be the TV channel's audio carrier, channel 3 could be CDMA US PCS channel 50, channel 4 could be GSM channel 600, channel 5 could be a nearby police repeater, channel 6 could be a ham repeater, etc.. If desired all 20 channels can be different. If the user is in a very dense RF environment with many emitters, the user could save several setups with different selections for each of the 20 channels to cover all the potentially interesting emitters.



Figure 20. Scanning US PCS downlink using the Graph Format

11/07/2006 05:33:13 p	1/07/2006 05:33:13 p.m.				
CD	#A US PCS - Downlink Channel Scanne Text View			Display	
10.0 dBm	Channel	Power (dBm)	Channel	Power (dBm)	Graph <u>Table</u>
Scale 10 dB/div	25	-50.8	275	-50.7	Max Hold On 5 sec <u>Off</u>
Current Channel 25	50	-50.6	300	-50.8	Channel Units
Channel Step Size	75	-50.6	325	-50.7	<u>Channel</u> Freq
Span 1.230 MHz	100	-50.9	350	-50.9	
Reference Freq	125	-50.8	375	-50.6	Units Display
Int Std Accy Power Display	150	-50.8	400	-50.6	Current Max
Current	175	-50.6	425	-50.6	Single Dual
Off	200	-50.7	450	-50.5	
	225	-50.7	475	-50.6	
	250	-50.8	500	-50.8	
Scanner	Ampli	tude Custom	i Setup	Measurements	

Figure 21. US PCS downlink Table Format