Calculation of Trending Parameters

"Trending Parameters" in the trending spectrum are based the following calculations:	
Fixed Parameters	
RMS	The RMS values are calculated out of the FFT. The averaging is done in the FFT.
Zero-peak	Calculated from the time waveform, the last time waveform used to calculate the FFT is used. There is no averaging, because the real peak value would be lost.
Peak-peak	Calculated out of the time waveform, the last time waveform used to calculate the FFT is used. There is no averaging, because the real peak value would be lost.
Crest	Calculated out of the time waveform, the last time waveform used to calculate the FFT is used. There is no averaging, because the real peak value would be lost.
User Defined	
Power in band	Calculated out of the selected band of the FFT; this value is the cube of the RMS value. The FFT is averaged, if the user selected band frequency is higher than the Fmax of the stored FFT, then a new FFT is created with the same number of averages as the stored FFT.
Peak in band	Calculated out of the band of the FFT; the FFT is averaged. If the user selected band frequency is higher than the Fmax of the stored FFT, then a new FFT is created with the same number of averages as the stored FFT.

RMS	Calculated out of the band of the FFT; the FFT is averaged. If the user selected band frequency is higher than the Fmax of the stored FFT, then a new FFT is created with the same number of averages as the stored FFT.
Zero-peak	Calculated out of the band of the FFT by using the inverse FFT (see note). The FFT is not averaged, because you would average down the peak value.
Peak-peak	Calculated out of the band of the FFT by using the inverse FFT (see note). The FFT is not averaged, because you would average down the peak-peak value.
Crest	Calculated out of the band of the FFT by using the inverse FFT (see note). The FFT is not averaged, because you would average down the crest value.
Cal. Zero-peak	RMS (see above) value multiplied with 1.41 (root 2)
Cal. Peak-peak	Double of Cal. Zero-peak
Note: The inverse FFT recreates the time waveform. The integration is done on the FFT to maintain the default units selected. The values are then calculated from the recreated time waveform. If the user selected band frequency is higher than the Fmax of the stored FFT, then a new FFT is created with the same averages as the stored FFT.	