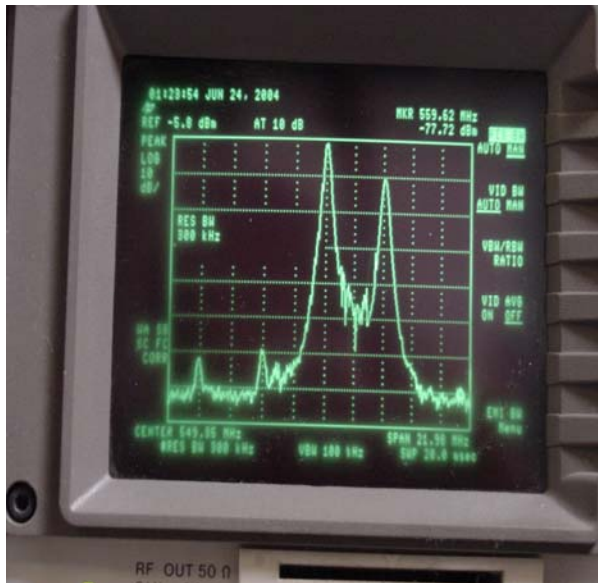


## CONDUCTED SPURIOUS AND HARMONICS

The following photographs indicate the spurious performance ( $> \pm 3$  MHz) from the designated TV channel. As can be seen from the photos (one taken at 3.0 kW and the other taken at 1.0 kW), the spurious levels are below 60 dB relative to the peak of sync of the visual carrier. The scan width is 22 MHz on the left hand picture and 30 MHz on the right hand picture.

POWER OUTPUT = 3.0 kWatts



POWER OUTPUT = 1.0 kWatt



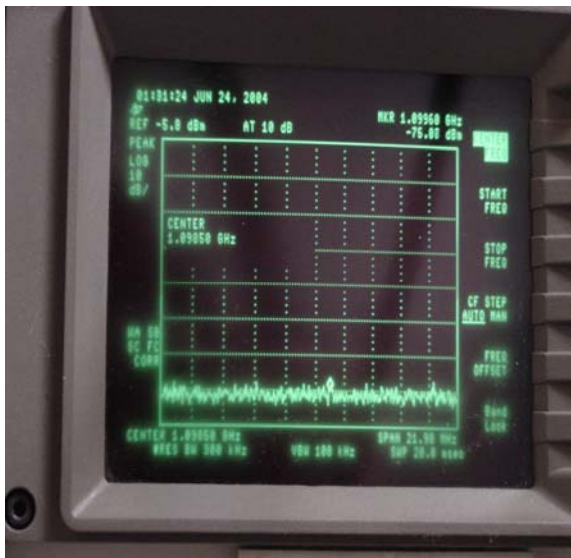
## CONDUCTED HARMONIC OUTPUTS

The following data indicates the harmonic performance of the UTX3KW. Only the 2<sup>nd</sup> harmonics were visible. The following table displays the actual value of the harmonic that takes into account the coupling factor of the directional coupler and loss of the cable used for the measurement. There was no value recorded when the instrument measured value was  $< -75$  dB relative to the visual peak of sync value as this was below the noise floor of the spectrum analyzer with the bandwidth used. Photographs of the spectrum containing the second harmonic are shown below. The pictures indicate that the harmonic levels are below 60 dB.

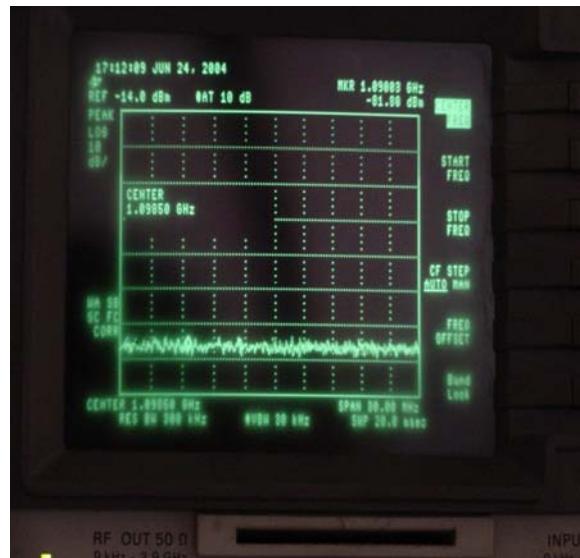
HARMONIC LEVELS VERSUS FREQUENCY AT 3.0 KW		
FREQUENCY OF HARMONIC (MHz)		AMPLITUDE (Relative to visual Peak Sync at fundamental frequency (dB))
1114	(2 <sup>nd</sup> harmonic)	-68
1671	(3 <sup>rd</sup> harmonic)	-75
2228	(4 <sup>th</sup> harmonic)	$< -75$
2783	(5 <sup>th</sup> harmonic)	$< -75$
3342	(6 <sup>th</sup> harmonic)	$< -75$
3899	(7 <sup>th</sup> harmonic)	$< -75$
4456	(8 <sup>th</sup> harmonic)	$< -75$
5013	(9 <sup>th</sup> harmonic)	$< -75$
5570	(10 <sup>th</sup> harmonic)	$< -75$

HARMONIC LEVELS VERSUS FREQUENCY AT 1.0 KW		
FREQUENCY OF HARMONIC (MHz)		AMPLITUDE (Relative to visual Peak Sync at fundamental frequency (dB))
1114	(2 <sup>nd</sup> harmonic)	-70
1671	(3 <sup>rd</sup> harmonic)	-75
2228	(4 <sup>th</sup> harmonic)	<-75
2783	(5 <sup>th</sup> harmonic)	<-75
3342	(6 <sup>th</sup> harmonic)	<-75
3899	(7 <sup>th</sup> harmonic)	<-75
4456	(8 <sup>th</sup> harmonic)	<-75
5013	(9 <sup>th</sup> harmonic)	<-75
5570	(10 <sup>th</sup> harmonic)	<-75

POWER OUTPUT = 3.0 kWatts



POWER OUTPUT = 1.0 kWatt



Both photographs are centered at the 2<sup>nd</sup> Harmonic because only those harmonics were possibly visible. The fundamental frequency visual peak of sync reference value is located at the top of the screen on these photographs. The values indicate a maximum harmonic level of -68 dB when corrected for coupling and cable loss.