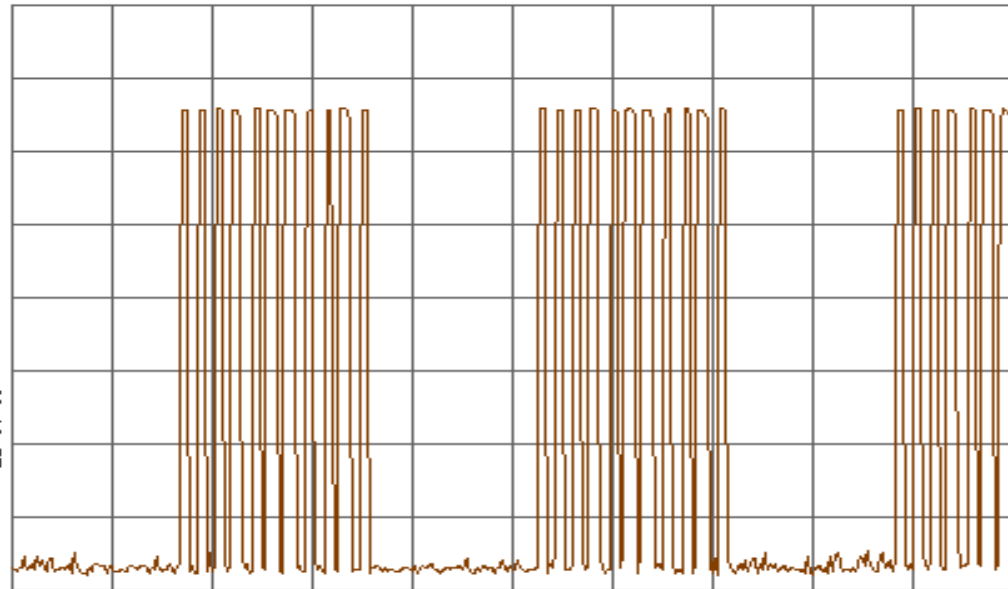
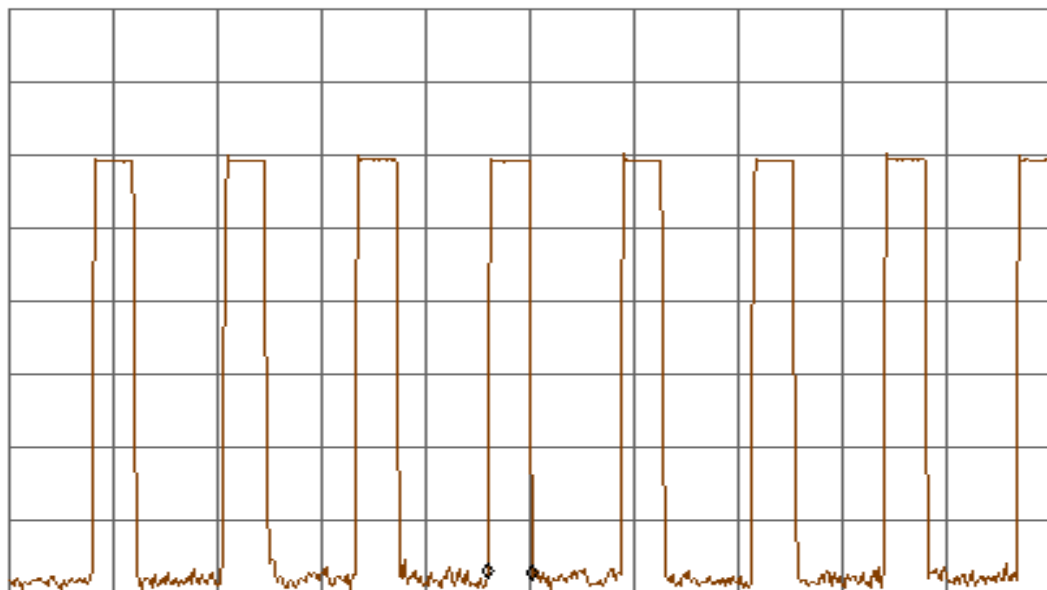


Test Data [2.1033(b6)]**Modulation Characteristics**

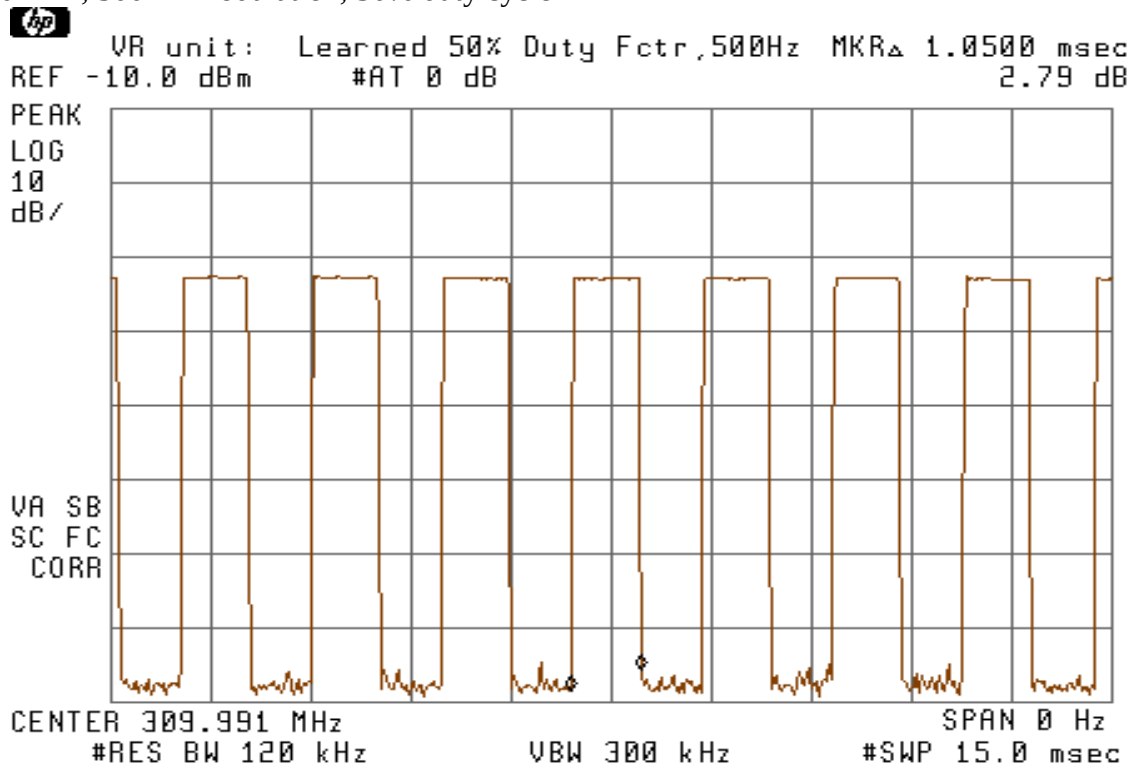
Typical encoding at 310MHz: Consisting of pulses of differing duty cycles.

VR unit: Default Modulation Characteristic; 310MHz
REF -10.0 dBm #AT 0 dBPEAK
LOG
10
dB/VA SB
SC VS
CORRCENTER 310.099 MHz SPAN 0 Hz
#RES BW 120 kHz VBW 300 kHz #SWP 200 msec

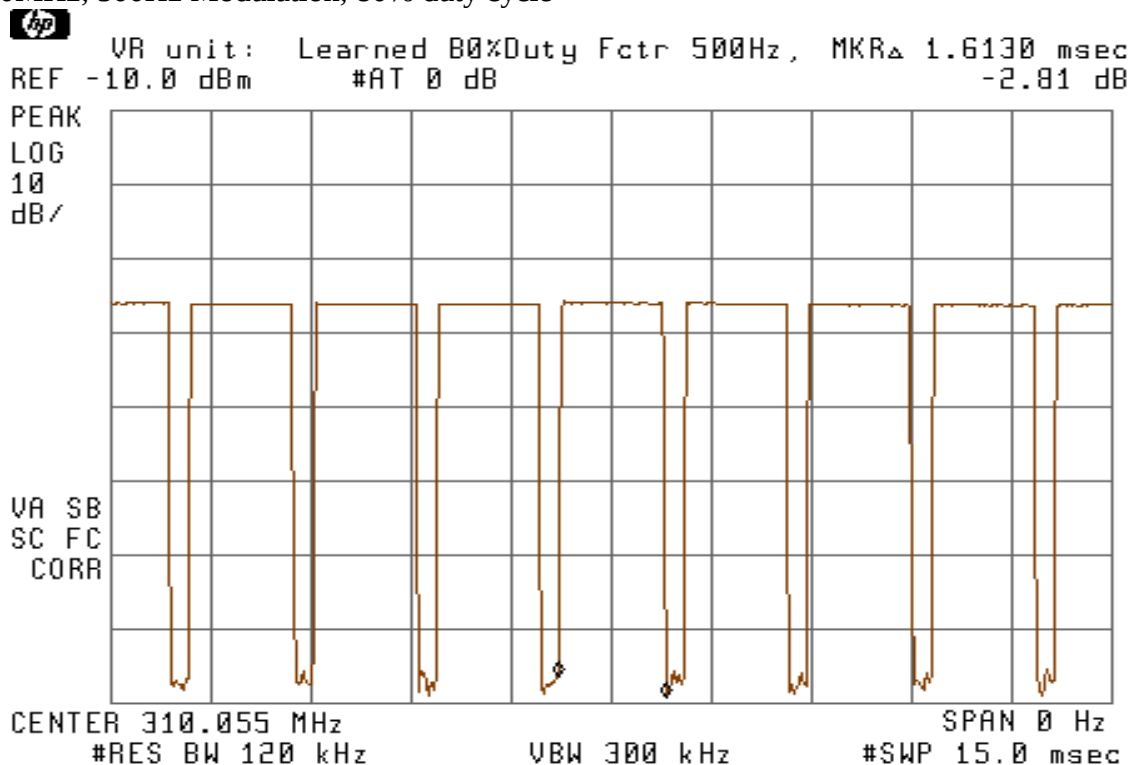
310MHz, 500Hz Modulation, 30% duty cycle

VR unit: Learned 30%DutyFctr, 500Hz MKRA 637.00 µsec
REF -10.0 dBm #AT 0 dB -0.31 dBPEAK
LOG
10
dB/VA SB
SC FC
CORRCENTER 309.877 MHz SPAN 0 Hz
#RES BW 120 kHz VBW 300 kHz #SWP 15.0 msec

310MHz, 500Hz Modulation, 50% duty cycle



310MHz, 500Hz Modulation, 80% duty cycle

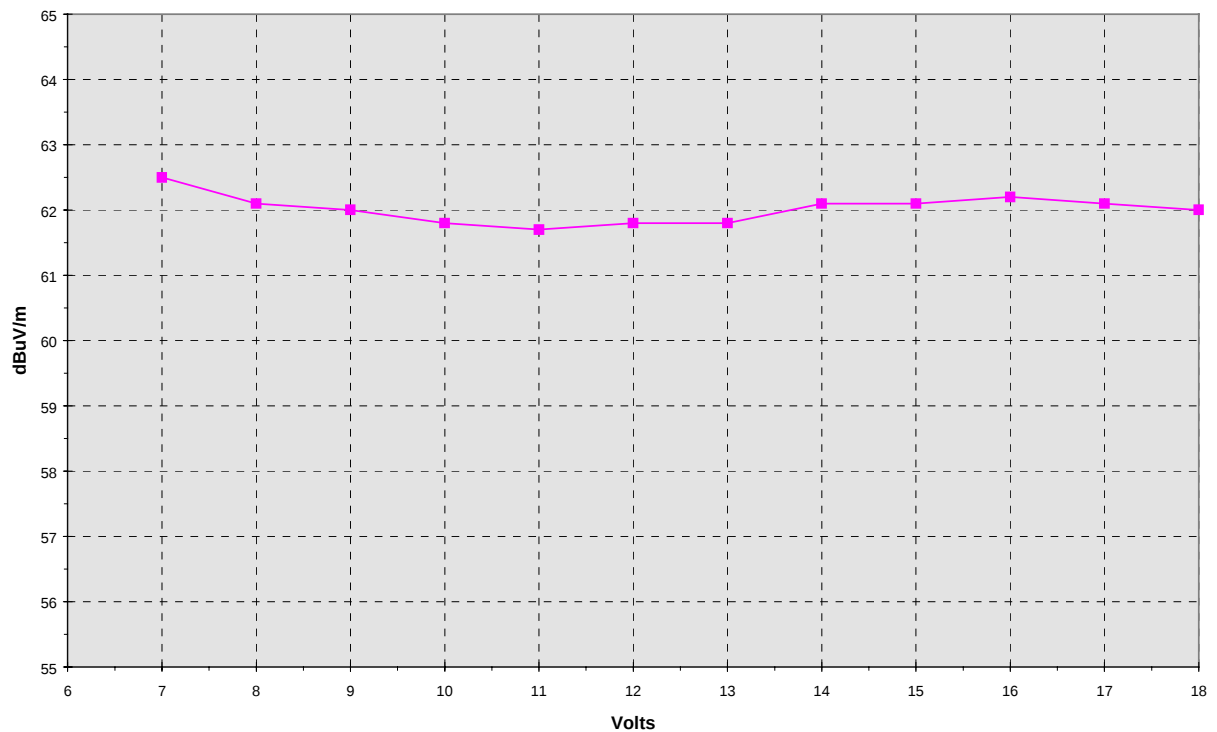


Relative Emission Level vs. Supply Voltage [15.31(e)]

The relative emission level as the supply voltage varied is presented in the charts below.

TX OUTPUT vs. Voltage LEVEL DUT= VC4968, 310MHz, 80%duty cycle	
Volt In	TX OutPut Pk dBuV/m
6	no-op
7	62.5
8	62.1
9	62.0
10	61.8
11	61.7
12	61.8
13	61.8
14	62.1
15	62.1
16	62.2
17	62.1
18	62.0

OUTPUT FIELD STRENGTH vs INPUT VOLTAGE
[Tuned to 310MHz; Modulated at 500Hz, 80% Duty Cycle]



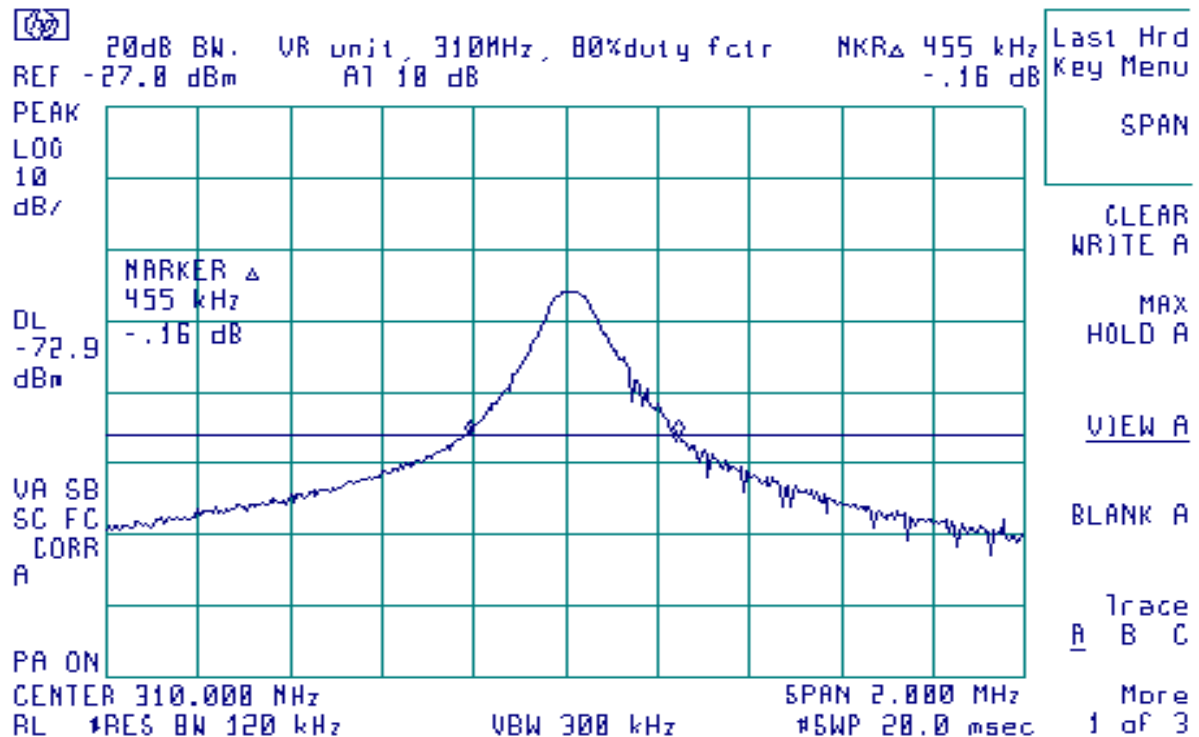
Occupied Bandwidth [15.231(c)]

The maximum allowed 20dB bandwidth is determined pursuant to 15.23(c). For fundamental signals between 70MHz and 900MHz the bandwidth allowed is 0.25% of the fundamental.

Formula 2: Allowed bandwidth = [Fundamental] x [.0025]

Fundamental (MHz)	Duty Cycle	Measured 20dB Bandwidth	LIMIT Fundamental * .0025
288	30%	455 KHz	720 KHz
"	50%	470 KHz	720 KHz
"	80%	495 KHz	720 KHz
310	30%	475 KHz	775 KHz
"	50%	455 KHz	775 KHz
"	80%	455 KHz	775 KHz
390	30%	495 KHz	975 KHz
"	50%	495 KHz	975 KHz
"	80%	495 KHz	975 KHz
418	30%	505 KHz	1045 KHz
"	50%	495 KHz	1045 KHz
"	80%	480 KHz	1045 KHz

This chart shows a typical measured bandwidth signal.



Restricted Bands: [15.205]

The following frequency bands are restricted. Only spurious emissions are permitted at levels limited by 15.209:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.25
0.490-0.510	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

LIMIT @ 3meter: [15.209(a)]

30-88MHz	100uV/m	40dBuV/m
88-216MHz	150uV/m	43.5dBuV/m
216-960MHz	200uV/m	46dBuV/m
above 960MHz	500uV/m	54dBuV/m

Verification of no capability to tune within the Restricted Bands.

The unit is designed capable of tuning from 285MHz to 420MHz. These frequencies include the restricted areas of 322-325.4MHz, 399.9-410MHz, and is near the restricted area of 240-285MHz.

The restricted bands are locked out by the Homelink® III firmware. An exercise which attempted to train the units into the restricted bands demonstrated how well the firmware functioned. The unit could not be trained any closer to the restricted band area than 1MHz outside the restricted bands edges.

The spurious emissions observed in the restricted bands did not exceed the allowed limits for the restricted bands.