

LNA Characteristics

	LNA Design based on Avago QMMK-1225	LNA Design based on Mitsubishi MGF4941CL-21
gain	7 dB	7 dB
noise figure	6,6 dB	6,5 dB
input VSWR	2:1	2:1
output VSWR	2:1	2:1
bandwidth	250 MHz	250MHz
1 dB compression point (input)	1 dBm	1 dBm
max. current consumption	21,5 mA	25,0 mA
k - factor	min. 1,5	min. 1,5

VCO Data (1/2)

VCO part

	UMS CHV2411	UMS CHV2412
output frequency range	24,0 – 24,25 GHz	24,0 – 24,25 GHz
tuning sensitivity	250 – 725 MHz/V	250 – 725 MHz/V
frequency drift rate	5 MHz/°C	5 MHz/°C
harmonics 2 F _{out}	-20 dBc	-20 dBc
SSB phase noise given @ F _{out} @ 100 kHz	max. -80 dBc/Hz	max. -80 dBc/Hz
output power on RF _{out} port @ 5V supply	13 – 19 dBm	13 – 19 dBm

VCO Data (1/2)

prescaler part & power consumption

	UMS CHV2411	UMS CHV2412
IF output frequency	F_out/16 GHz	F_out/16 GHz
IF output power on 50Ω	-3 – 0 dBm	-3 – 0 dBm
temperature range	-40 – 115°C	-40 – 115°C
max. current consumption	280 mA	206 mA