Sherwood Engineering HF Test Results

Model FTdx10 Serial # 0N010029 Test Date: 12/29/2020

IF BW 2400 –6 / -60, Hz	/	Ultimate	>100	dB
IF BW 500 –6 /-60, Hz	/	Ultimate	>105	dB

Front End Selectivity	Half Octave	
First IF rejection 9005 kHz	91	dB

Dynamic Range of radio, no preamp		
Dynamic Range 20 kHz	107	dB
Dynamic Range 10 kHz	107	dB
Dynamic Range 5 kHz	107	dB
Dynamic Range 2 kHz	107	dB

Dynamic Range with radio, Preamp 1		
Dynamic Range 20 kHz	106	dB
Dynamic Range 10 kHz	106	dB
Dynamic Range 5 kHz	106	dB
Dynamic Range 2 kHz	104	dB

Blocking above noise floor, 1uV signal @ 100 kHz, AGC On,	141*	dB
* Limited by phase noise		

Phase noise (normalized) at 2.5 kHz spacing:	-145	dBc/Hz
Phase noise (normalized) at 5 kHz spacing:	-150	dBc/Hz
Phase noise (normalized) at 10 kHz spacing:	-152	dBc/Hz
Phase noise (normalized) at 20 kHz spacing:	-153	dBc/Hz
Phase noise (normalized) at 30 kHz spacing:	-153	dBc/Hz
Phase noise (normalized) at 40 kHz spacing:	-153	dBc/Hz
Phase noise (normalized) at 50 kHz spacing:	-153	dBc/Hz
Phase noise (normalized) at 100 kHz spacing:	-153	dBc/Hz
Phase noise (normalized) at 200 kHz spacing:	-153	dBc/Hz
Phase noise (normalized) at 300 kHz spacing:	-154	dBc/Hz
Phase noise (normalized) at 400 kHz spacing:	-155	dBc/Hz
Phase noise (normalized) at 500 kHz spacing:	-155	dBc/Hz

RMDR at 2.5 kHz spacing:	118	dB
RMDR at 5 kHz spacing:	123	dB
RMDR at 10 kHz spacing:	125	dB
RMDR at 20 kHz spacing:	126	dB
RMDR at 50 kHz spacing:	126	dB
RMDR at 100 kHz spacing:	126	dB
RMDR at 200 kHz spacing:	126	dB
RMDR at 500 kHz spacing:	128	dB

Noise floor, SSB bandwidth 14 MHz, no preamp		-121	dBm
Noise floor, SSB bandwidth 14 MHz, Preamp 1 On		-130	dBm
Noise floor, SSB bandwidth 14 MHz, Preamp 2 On		-133	dBm
Sensitivity SSB at 14 MHz, no preamp		0.63	uV
Sensitivity SSB at 14 MHz, Preamp 1 On		0.21	uV
Sensitivity SSB at 14 MHz, Preamp 2 On		0.15	uV
Noise floor, 500 Hz, 14.2 MHz, no preamp		-126	dBm
Noise floor, 500 Hz, 14.2 MHz, Preamp 1 On		-135	dBm
Noise floor, 500 Hz, 14.2 MHz, Preamp 2 On		-138	dBm
Noise floor, SSB, 50.125 MHz, no preamp		-123	dBm
Noise floor, SSB, 50.125 MHz, Preamp 1		-133	dBm
Noise floor, SSB, 50.125 MHz, Preamp 2		-135	dBm
Sensitivity, SSB, 50.125 MHz, no preamp		0.42	uV
Sensitivity, SSB, 50.125 MHz, Preamp 1		0.15	uV
Sensitivity, SSB, 50.125 MHz, Preamp 2		0.14	uV
Noise floor, 500 Hz, 50.125 MHz, no preamp		-130	dBm
Noise floor, 500 Hz, 50.125 MHz, Preamp 1 On		-139.5	dBm
Noise floor, 500 Hz, 50.125 MHz, Preamp 2 On		-140	dBm
Signal for S9, no preamp	-67 dBm	100	uV
Signal for S9, Preamp 1	-76 dBm	35	uV
Signal for S9, Preamp 2	-85 dBm	12	uV
Gain of preamp(s)			
Preamp 1		9	dB
Preamp 2		18	dB
AGC threshold at 3 dB, no preamp		4.2	uV
AGC threshold at 3 dB, Preamp 1 On		1.46	uV
AGC threshold at 3 dB, Preamp 2 On		0.54	uV

Note: SSB noise floor and sensitivity were inadvertently measured at 3000 Hz instead of 2400 Hz, as 3000 Hz is the default bandwidth for the FTdx10. All other measurements in the CW mode were made at the standard 500-Hz bandwidth.