

Thales ‘Top Flight’ Satellite Data Unit (SDU)

Exhibit 6c - Conducted Emissions Plots (No DLNA) Part 1

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Translation of 47CFR Part 87.139 emissions limits to HPA output with allowance for DLNA specified performance

Frequency band (MHz)	Part 87 limit (dBc) (1)	DLNA rejection (dB)	Limit at HPA (dBc)	Limit in measured bandwidth	Notes
0.01 to 1525	-135 / 4KHz	>80	-55 / 4KHz	-51 / 10 KHz	
1525 to 1559	-203 / 4KHz	>120	-83 / 4KHz	-79 / 10 KHz	
1559 to 1585	-155 / MHz	>100	-55 / MHz	no change	
1585 to 1605	-143 / MHz	>88	-55 / MHz	no change	
1605 to 1610	-117 / MHz	>62	-55 / MHz	no change	
1610 to 1610.6	-95 / MHz	>40	-55 / MHz	no change	
1610.6 to 1613.8	-80 dBW / MHz	>40	-40 dBW / MHz	no change	3
1613.8 to 1614	-95 / MHz	>40	-55 / MHz	no change	
1614 to 1626.5	-70 / 4KHz	decreases	-70 / 4KHz	-66 / 10 KHz	
1626.5 to 1660	-70 / 4KHz	<0.8	-70 / 4KHz	-66 / 10 KHz	2,3,4
1660 to 1670	-49.5 dBW / 20 KHz	increases	-49.5 dBW / 20 KHz	-47.5 dBW / 30 KHz	2,3,4
1670 to 1735	-60 / 4KHz	increases	-60 / 4KHz	-56 / 10 KHz	
1735 to 2000	-105 / 4KHz	>50	-55 / 4KHz	-51 / 10 KHz	5
2000 to 12000	-105 / 4KHz	>50	-55 / 4KHz	-51 / 10 KHz	5
12000 to 18000	-70 / 4KHz	>15	-55 / 4KHz	-51 / 10 KHz	

Notes: 1 Attenuation limit in dB relative to carrier power

2 Excludes occupied bandwidth

3 Not applicable for intermodulation products

4 Narrow band spurious signal limit 10 dB above table value

5 Spectrum analyser sweep split at 2000 MHz

Figure 1: Exhibit 6c_1 - Limit translation

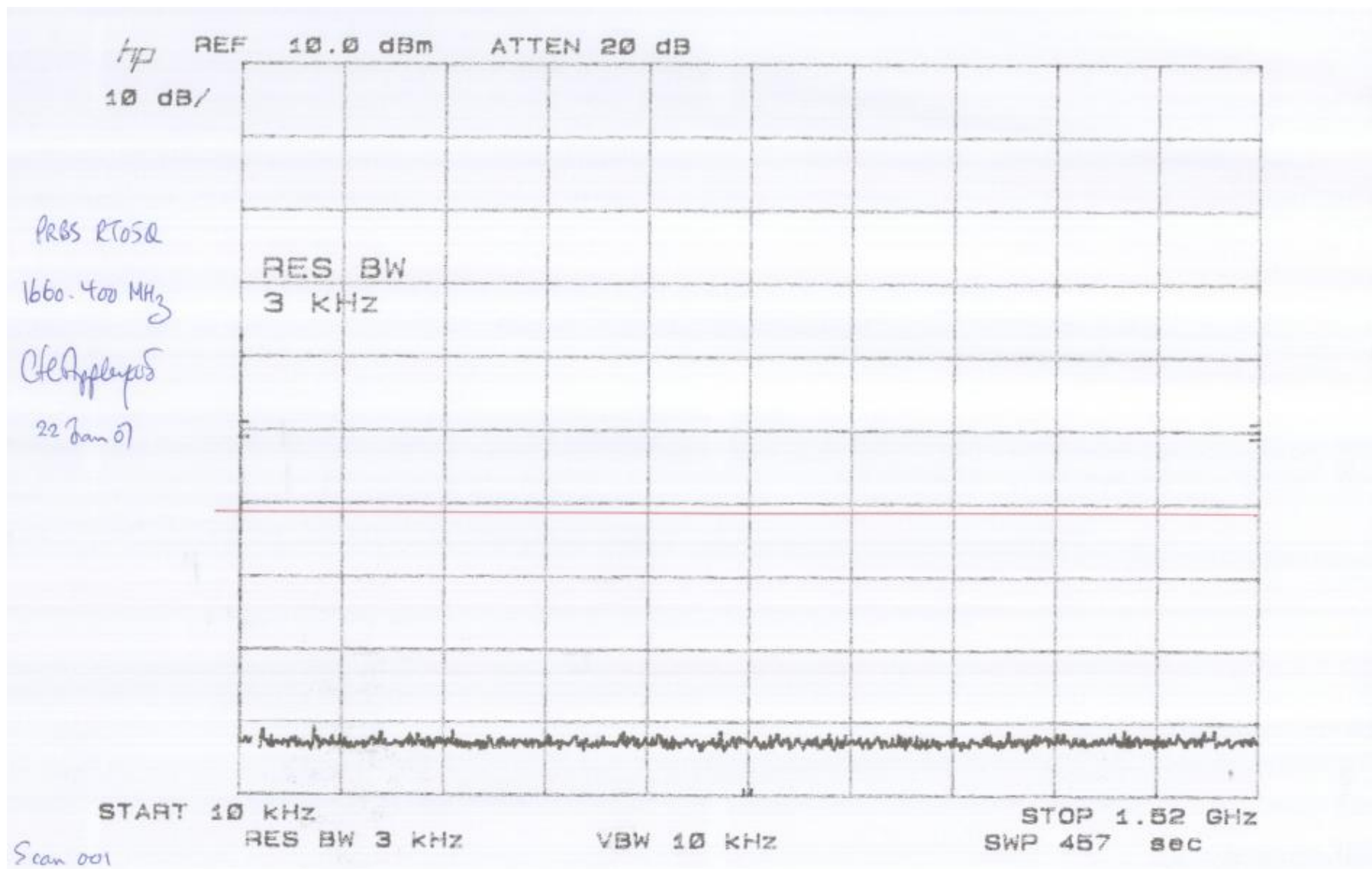


Figure 2: Exhibit 6c_2 - PRBSRT05Q H 10KHz - 1525 MHz

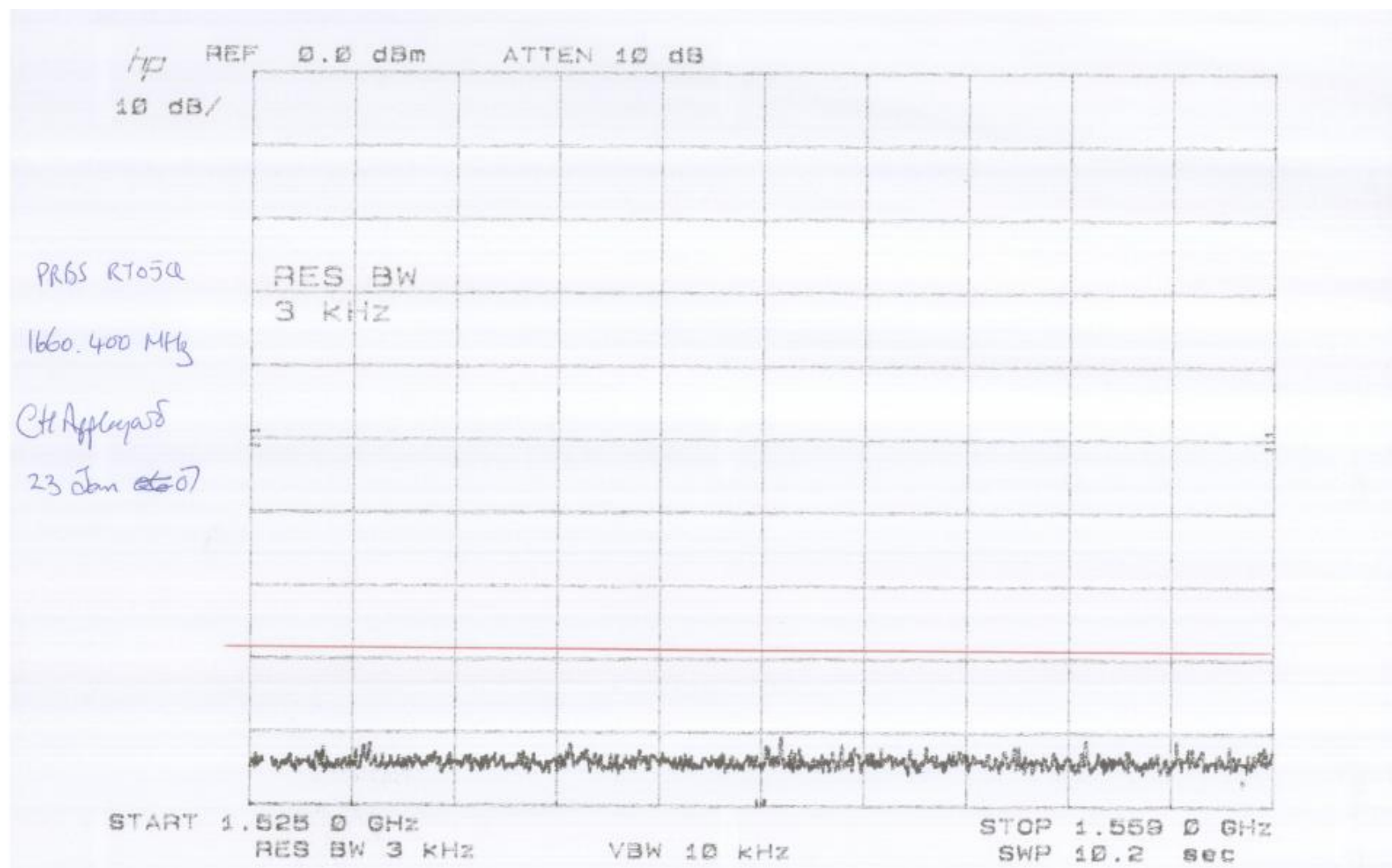


Figure 3: Exhibit 6c_3 - PRBSRT05Q H 1525 - 1559 MHz

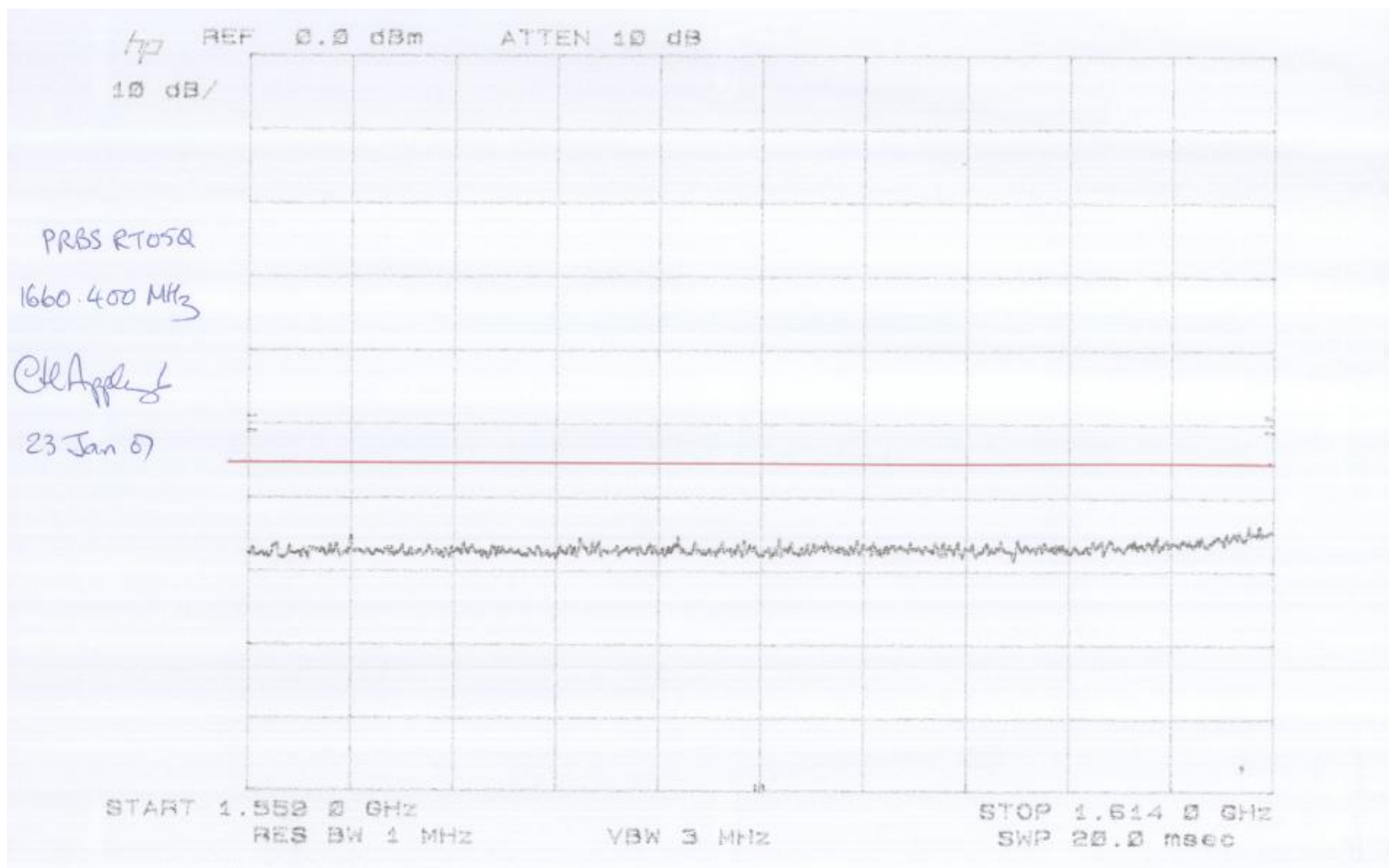


Figure 4: Exhibit 6c_4 - PRBSRT05Q H 1559 - 1614 MHz

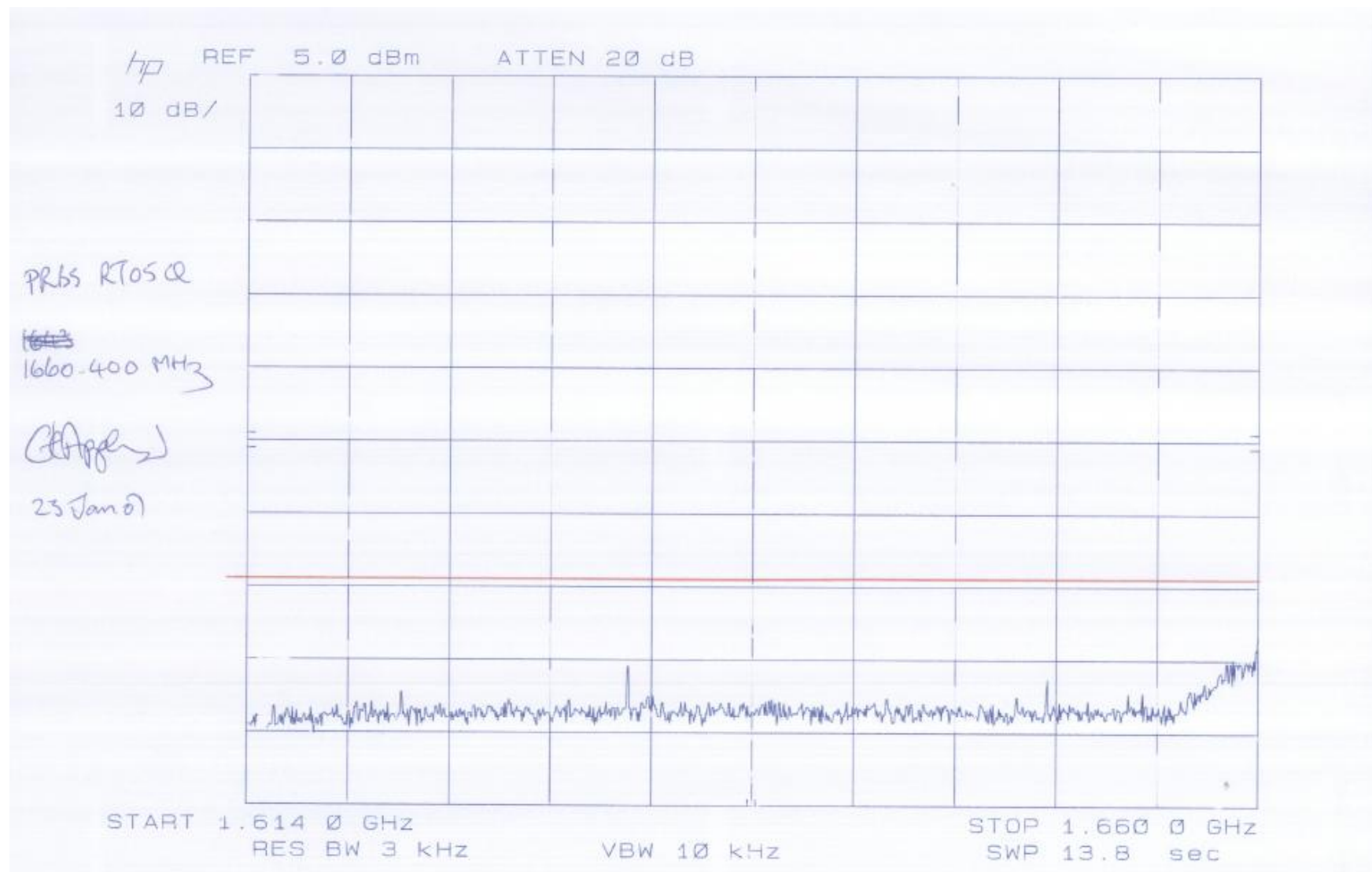


Figure 5 Exhibit 6c_5 - PRBSRT05Q H 1614 - 1660 MHz

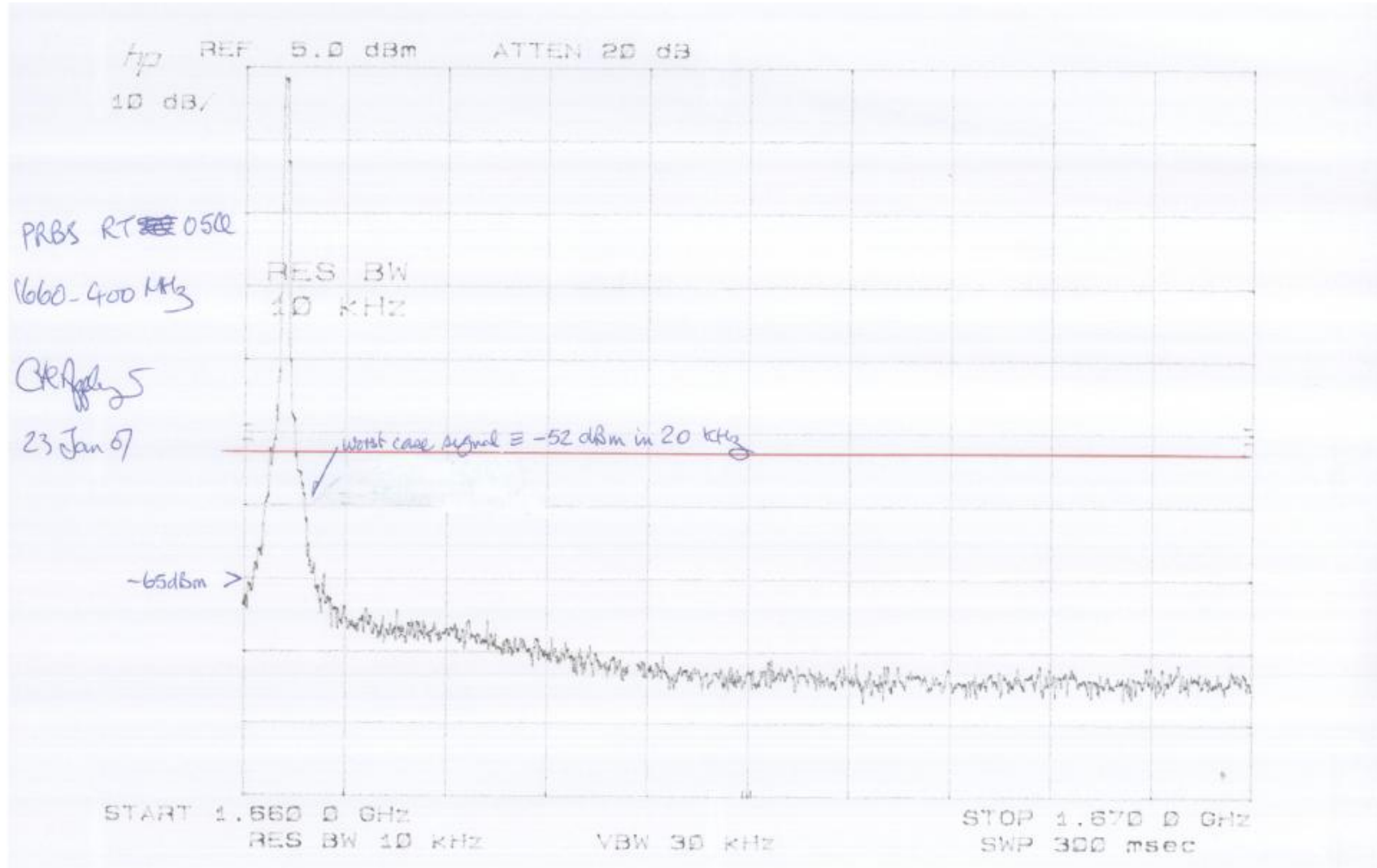


Figure 6 Exhibit 6c_6 - PRBSRT05Q H 1660 - 1670 MHz

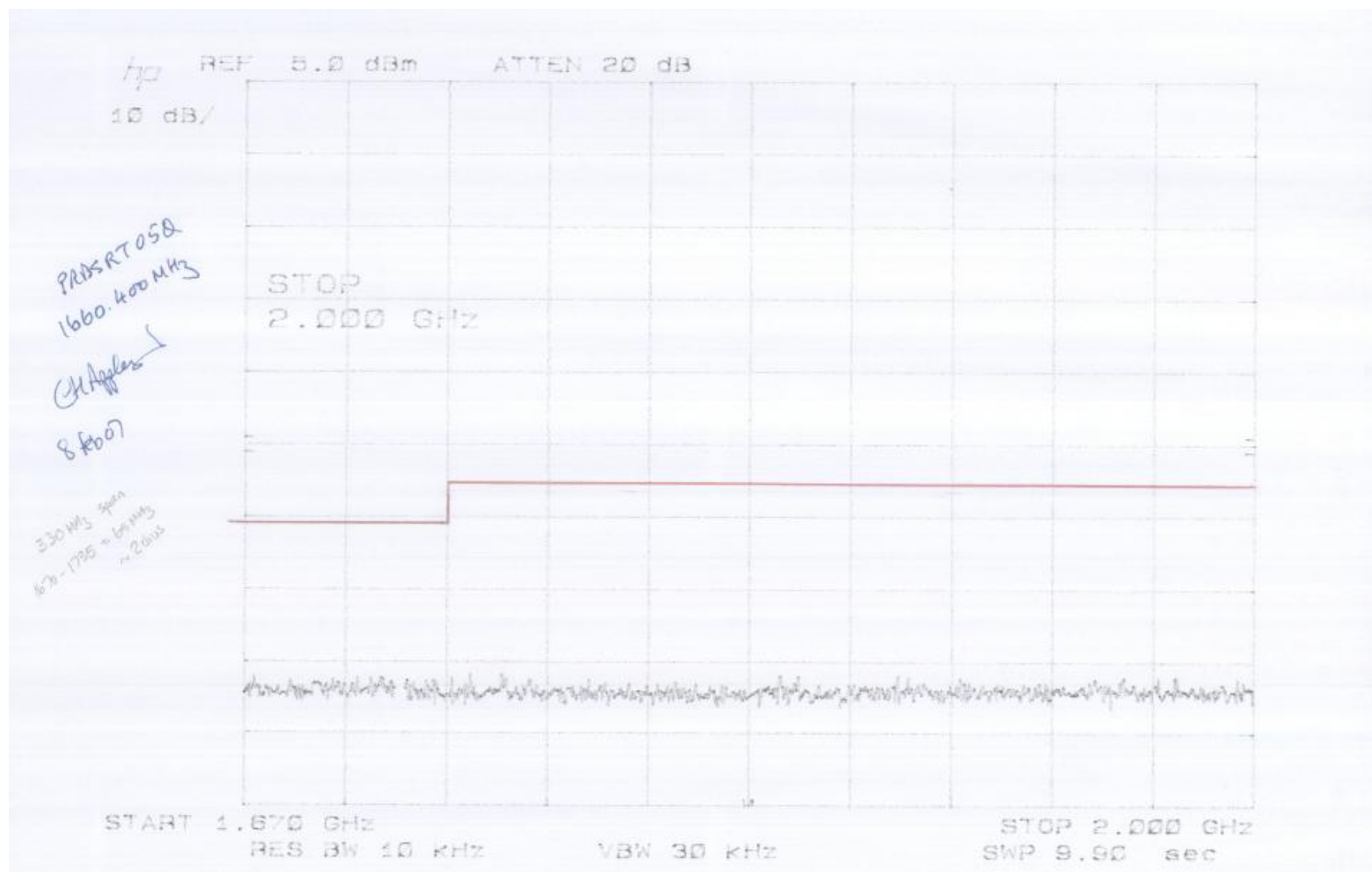


Figure 7 Exhibit 6c_7 - PRBSRT05Q H 1670 - 2000 MHz

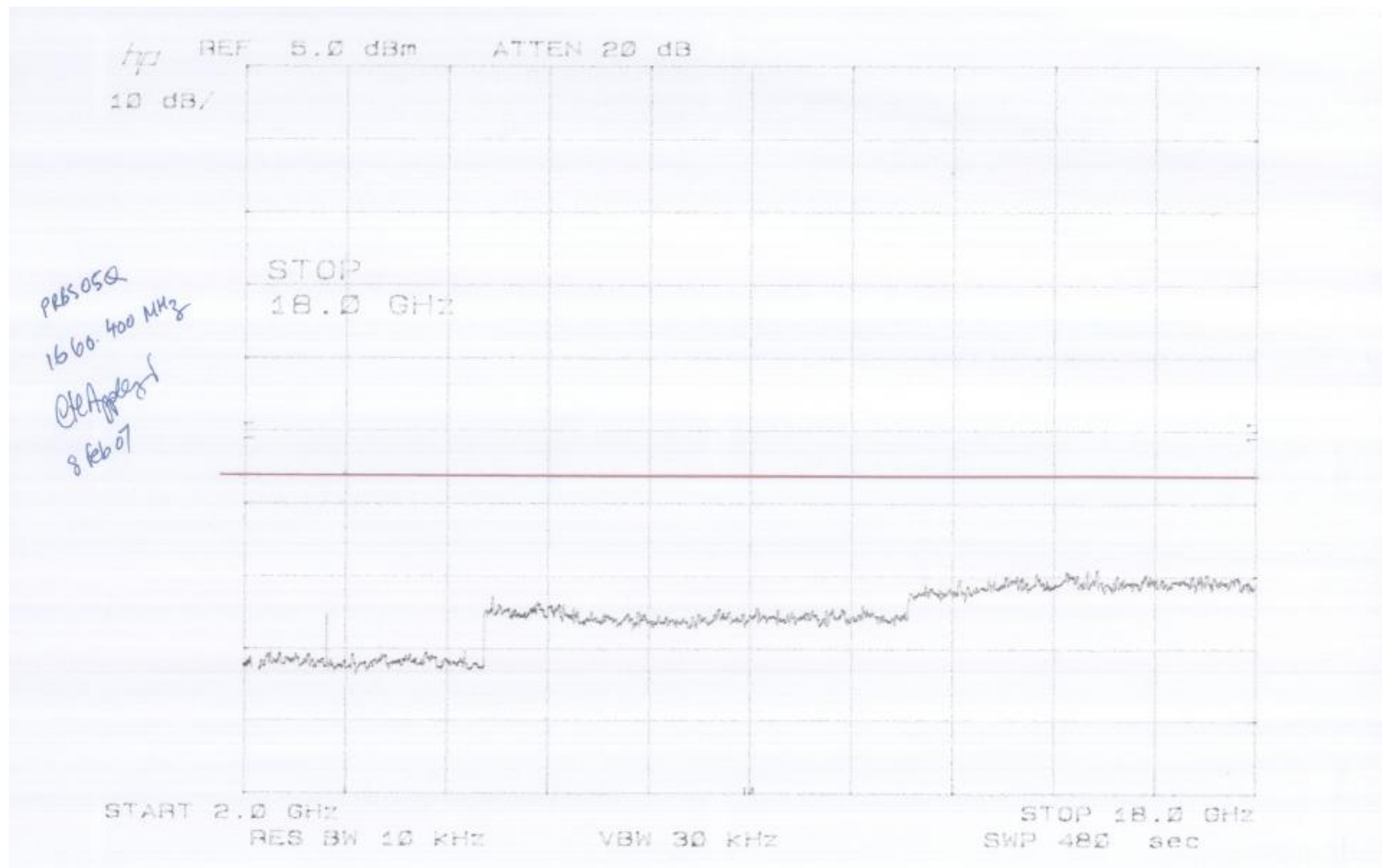


Figure 8 Exhibit 6c_8 - PRBSRT05Q H 2 - 18 GHz

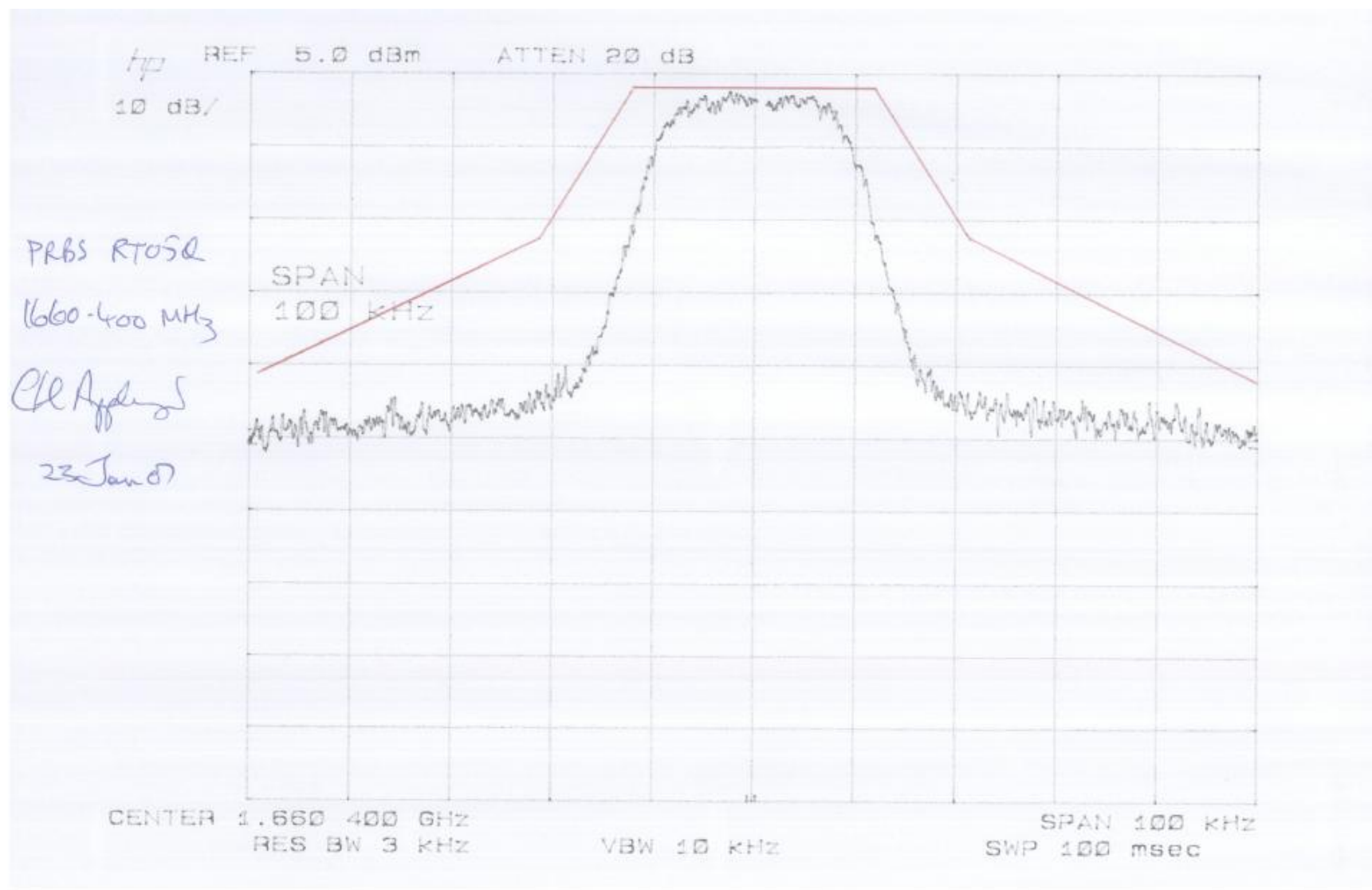


Figure 9 Exhibit 6c_9 - PRBSRT05Q H Span 100 KHz

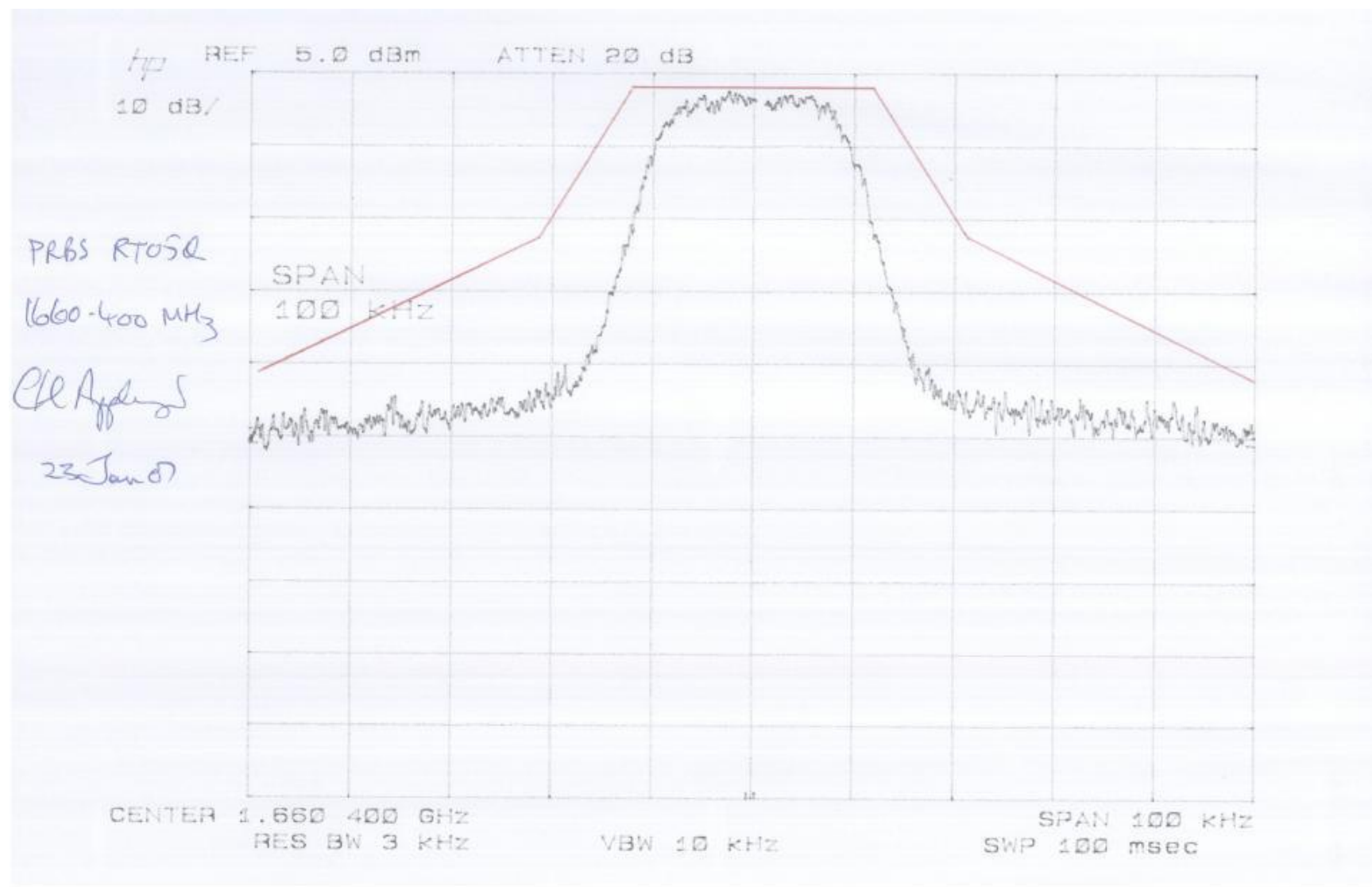


Figure 10 Exhibit 6c_10 - PRBSRT05Q L 10KHz - 1525 MHz

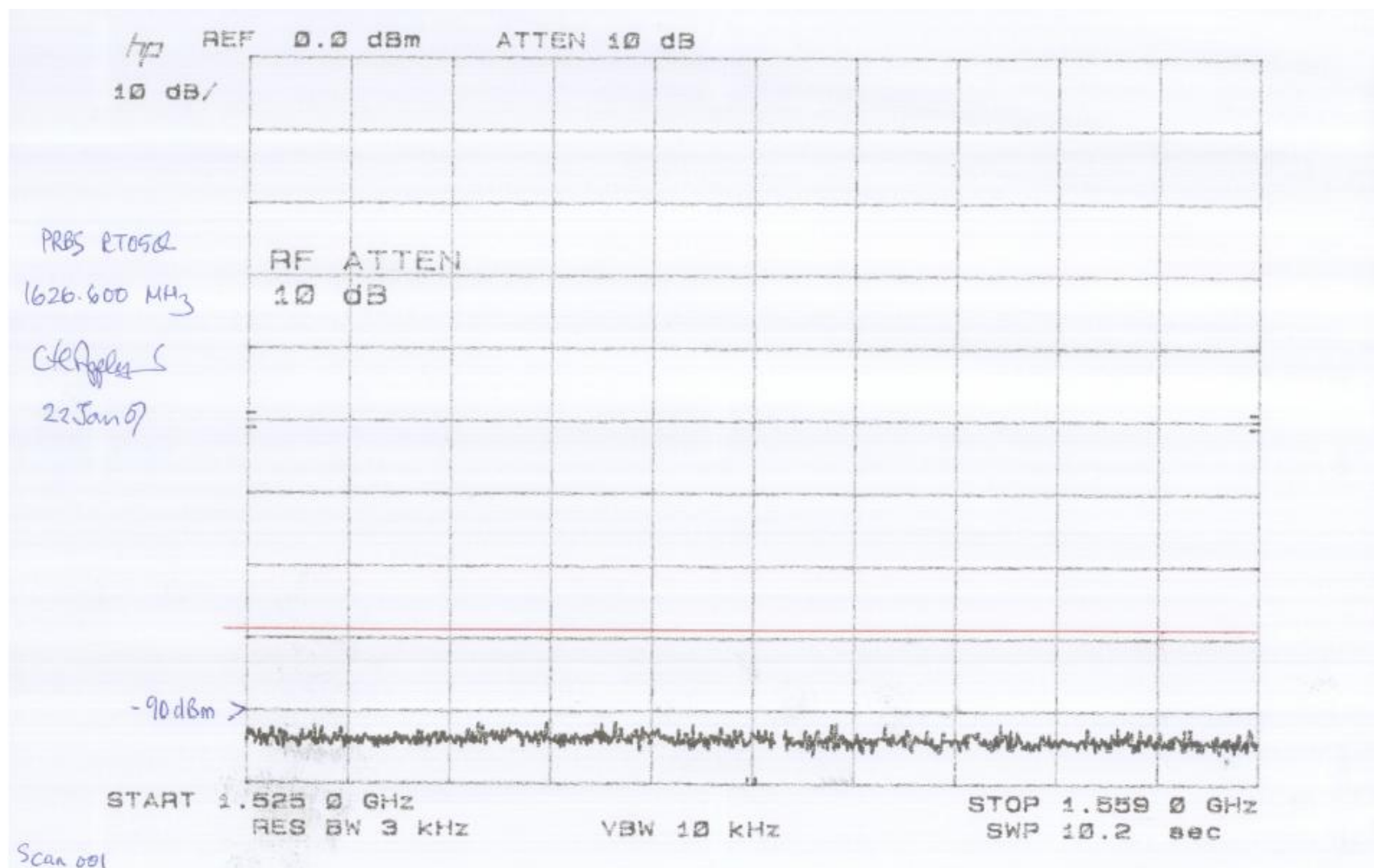


Figure 11 Exhibit 6c_11 - PRBSRT05Q L 1525 - 1559 MHz

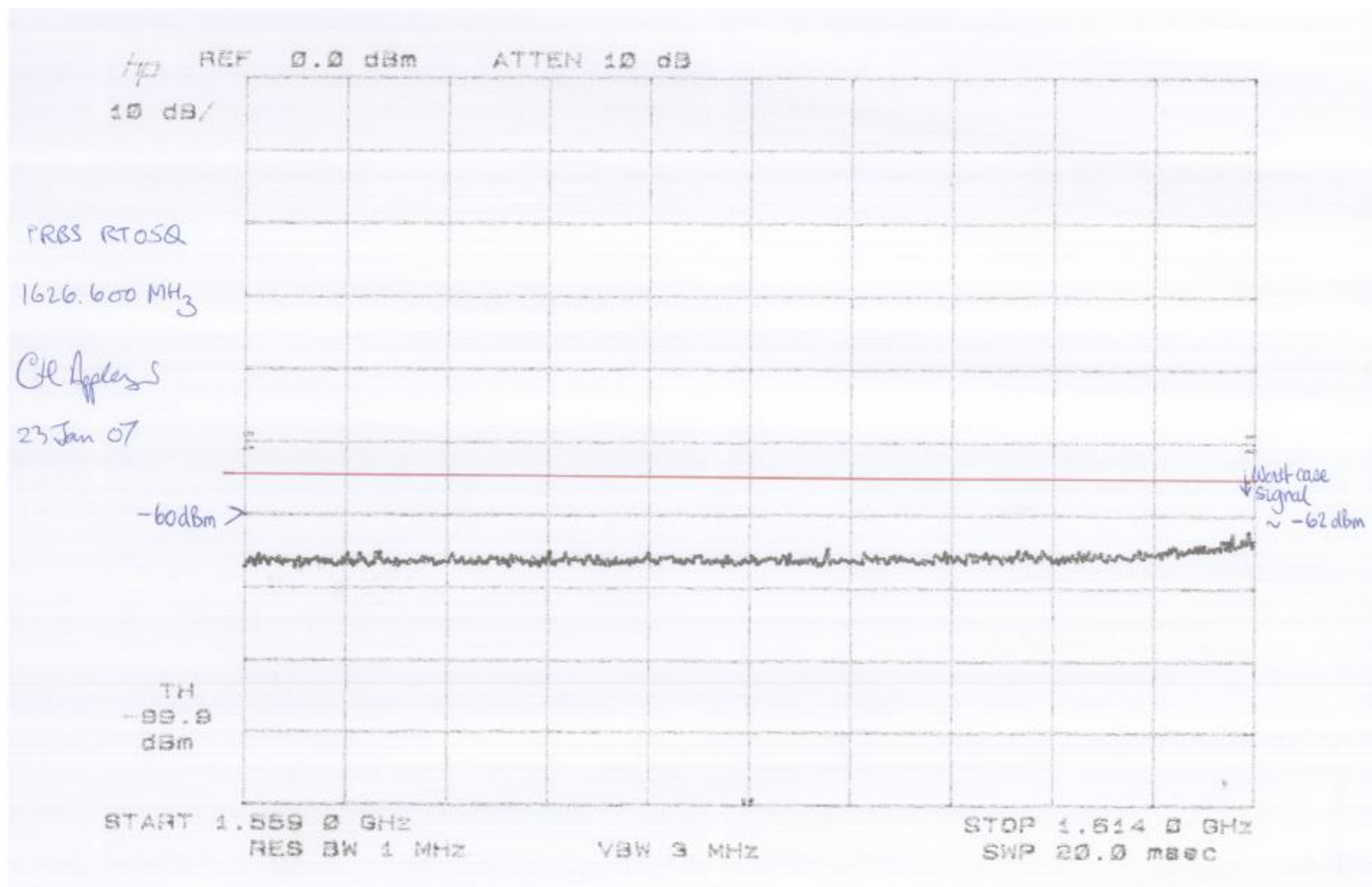


Figure 12 Exhibit 6c_12 - PRBSRT05Q L 1559 - 1614 MHz

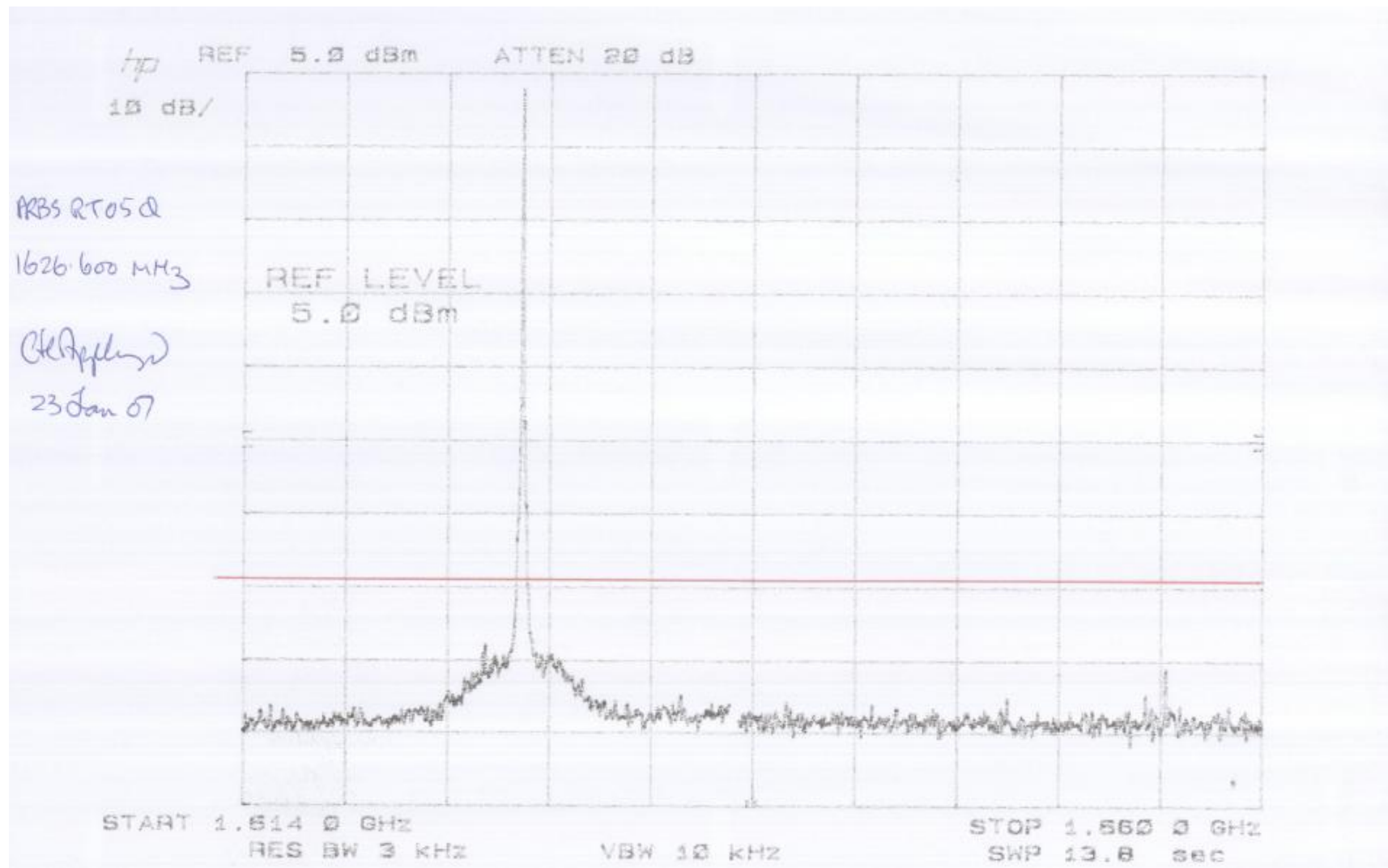


Figure 13 Exhibit 6c_13 - PRBSRT05Q L 1614 - 1660 MHz

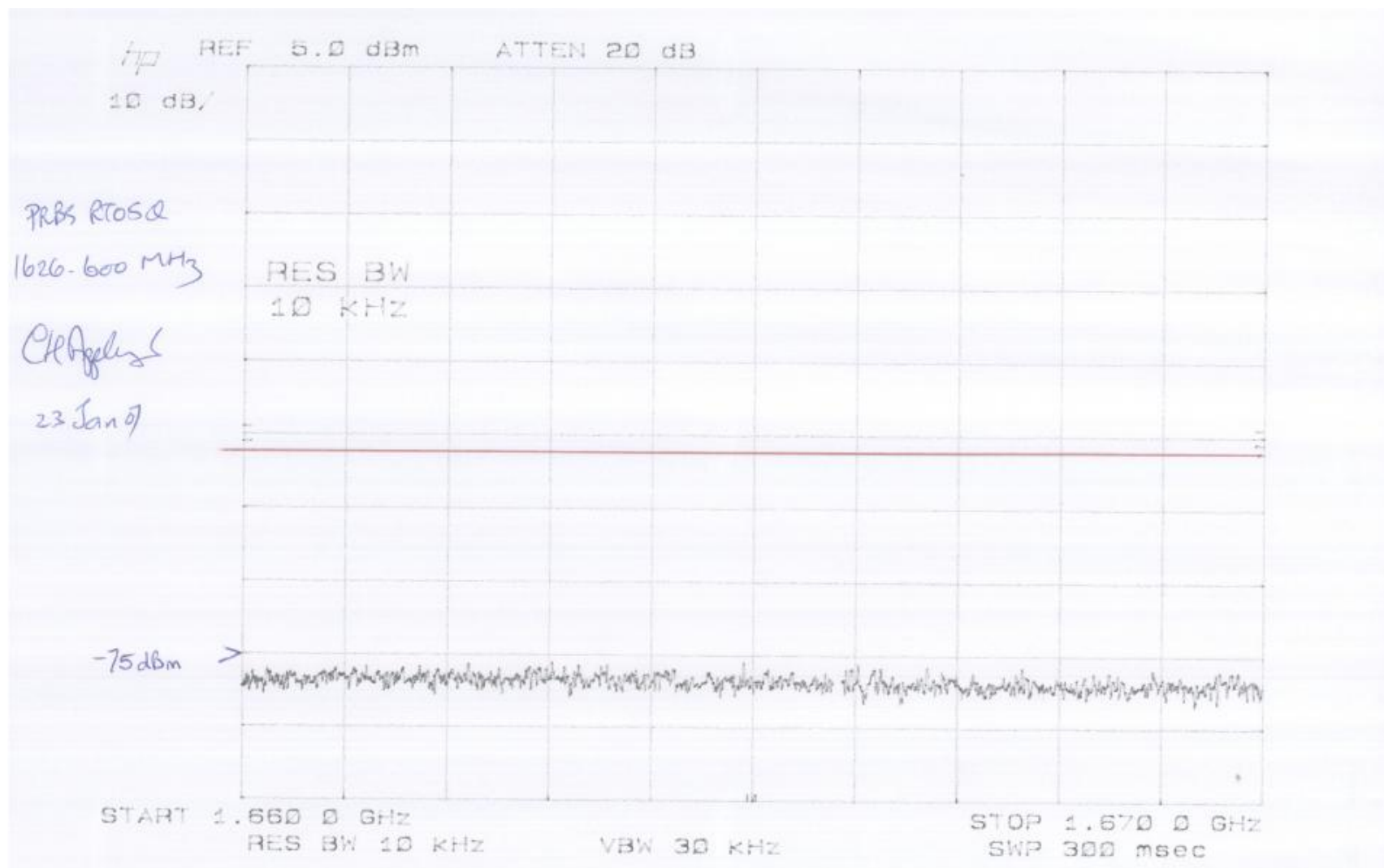


Figure 14 Exhibit 6c_14 - PRBSRT05Q L 1660 - 1670 MHz

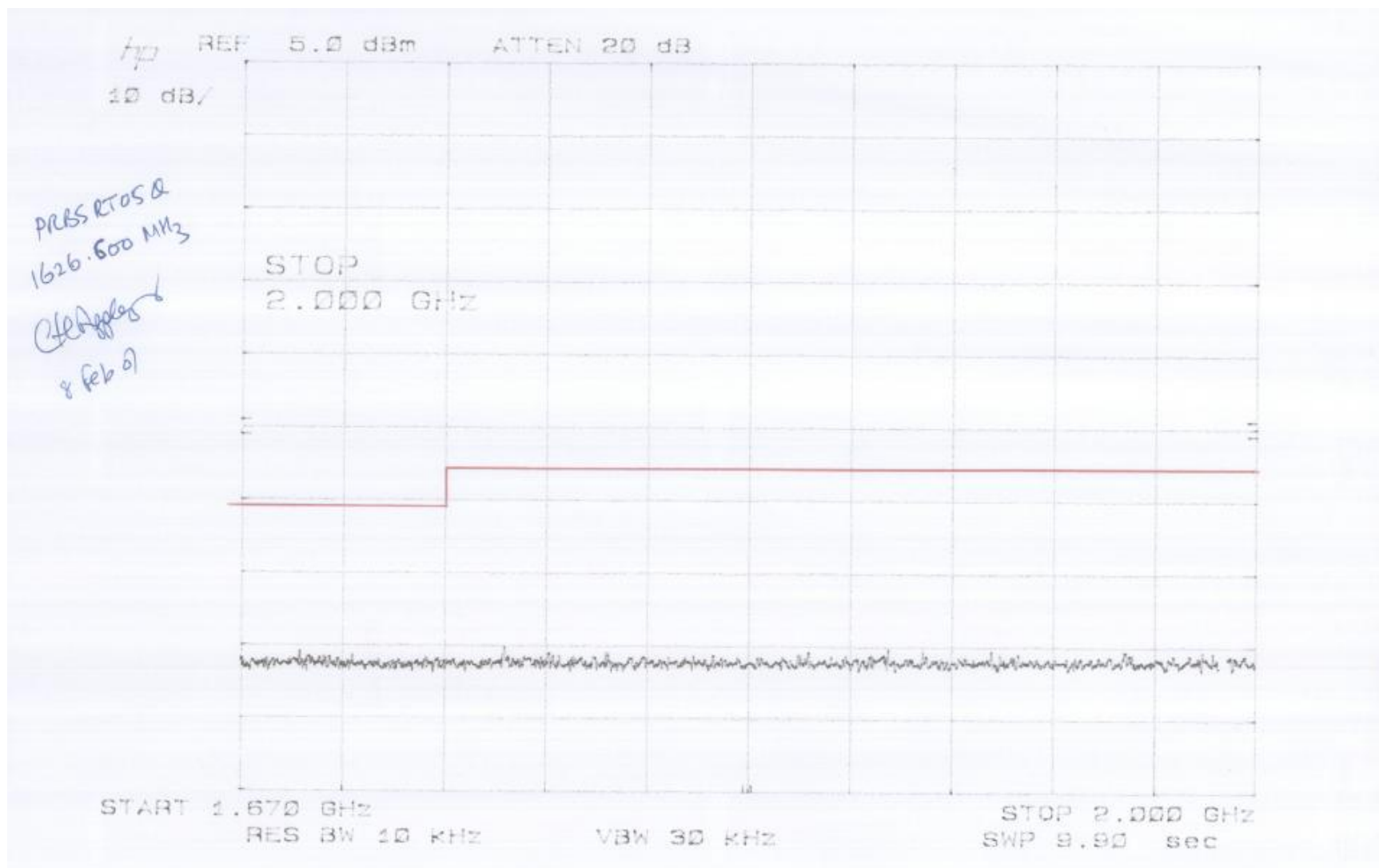


Figure 15 Exhibit 6c_15 - PRBSRT05Q L 1670 - 2000 MHz

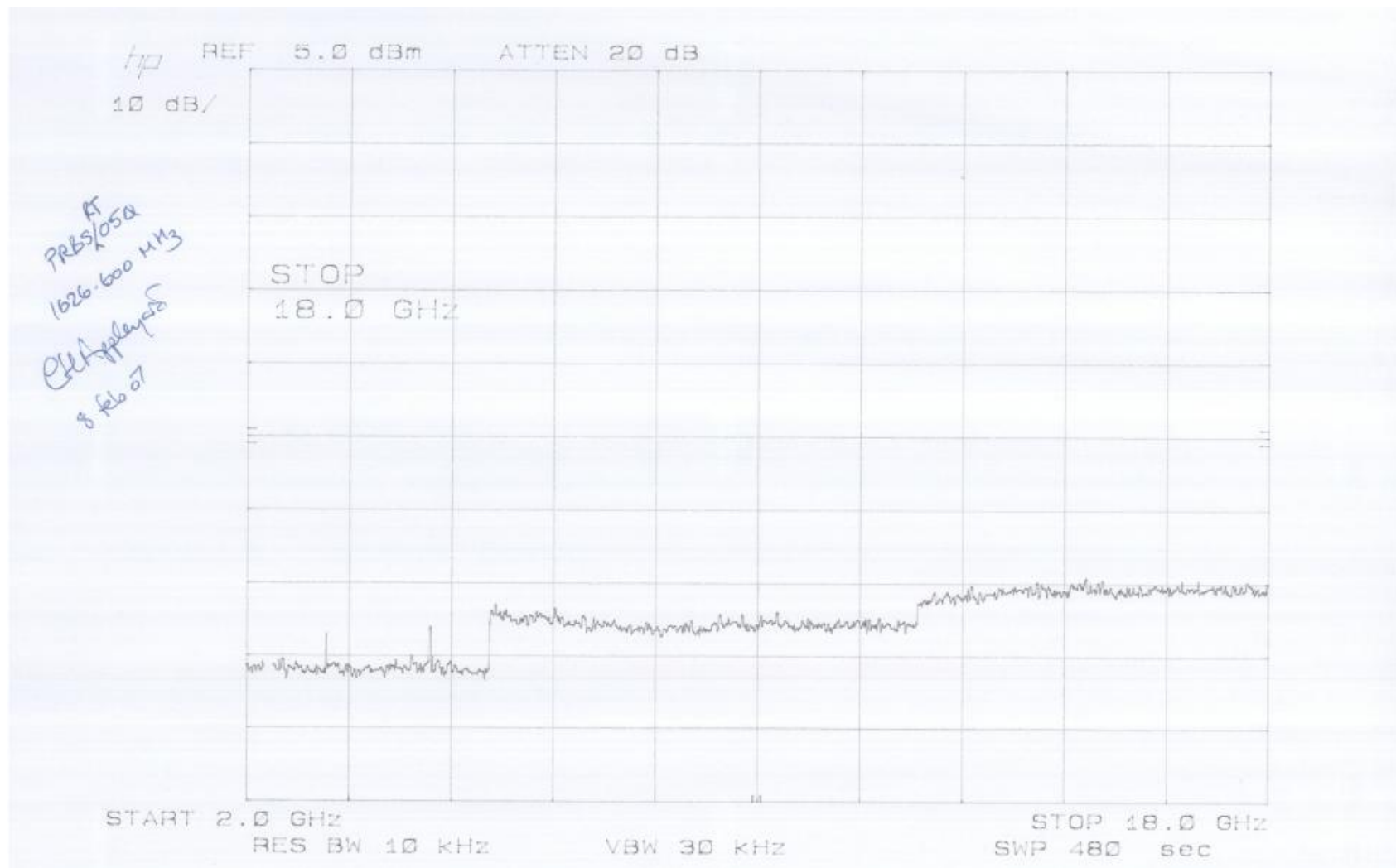


Figure 16 Exhibit 6c_16 - PRBS05Q L 2 - 18 GHz

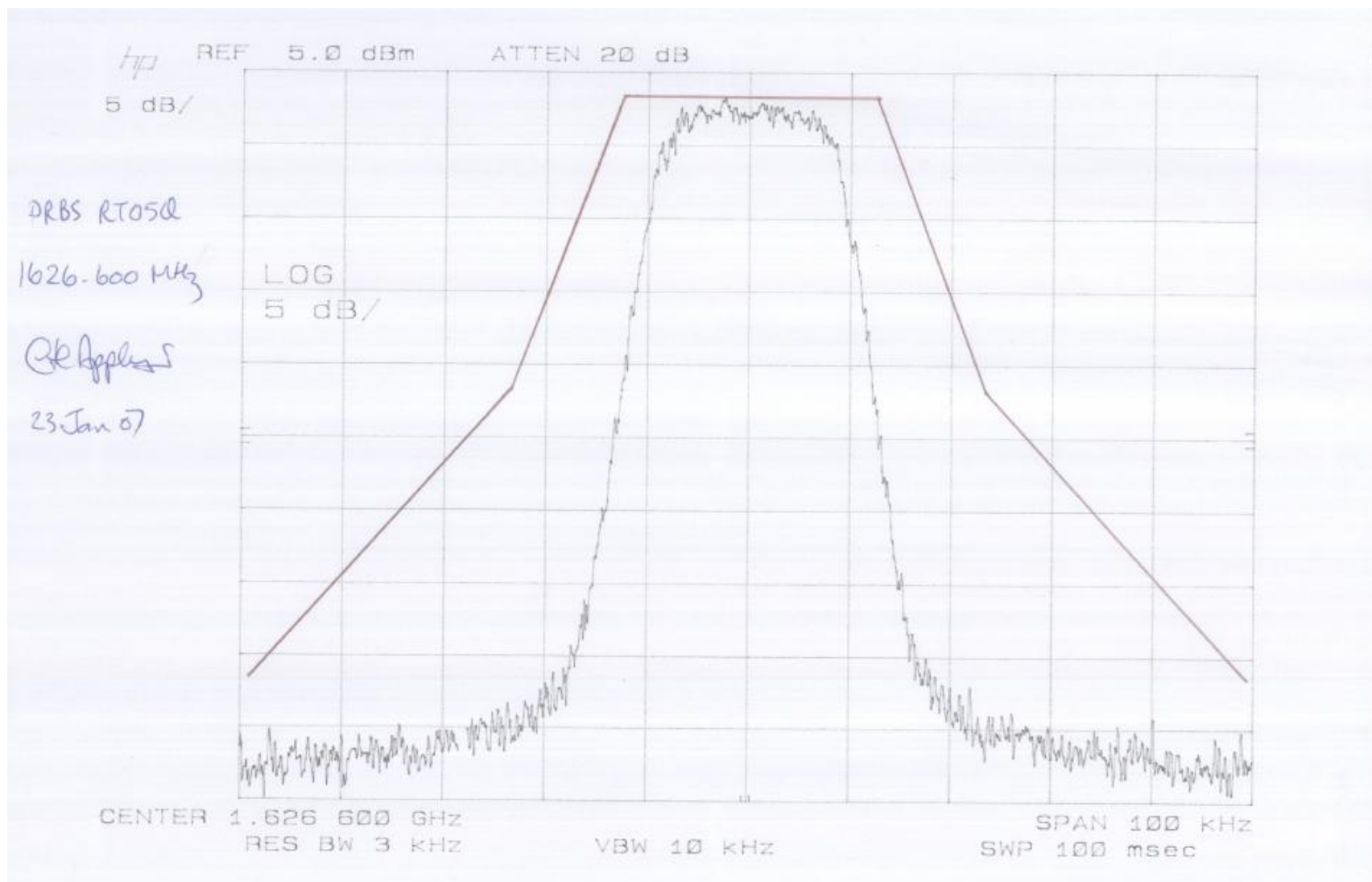


Figure 17 Exhibit 6c_17 - PRBSRT05Q L Span 100 KHz

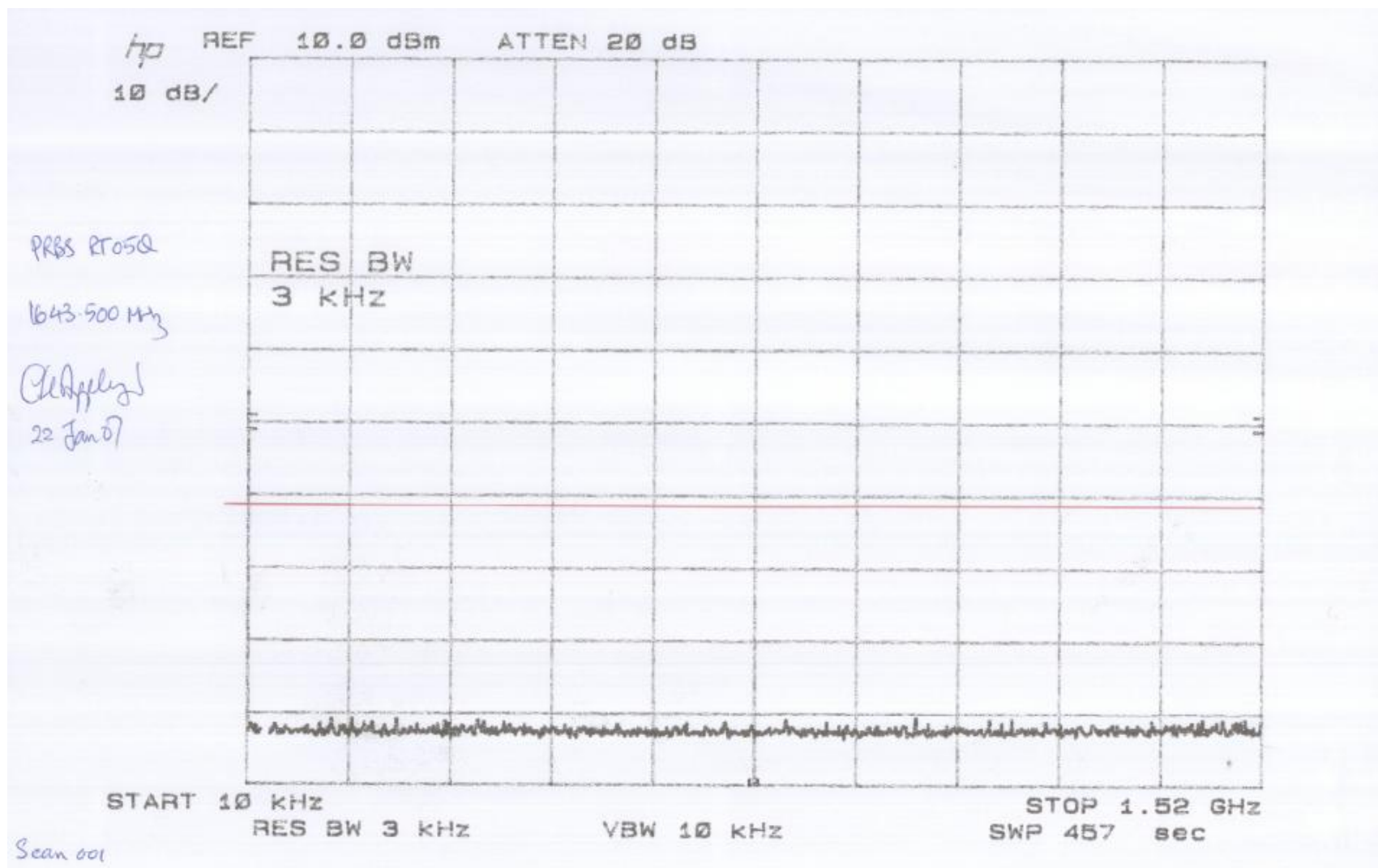


Figure 18 Exhibit 6c_18 - PRBSRT05Q M 10KHz - 1525 MHz

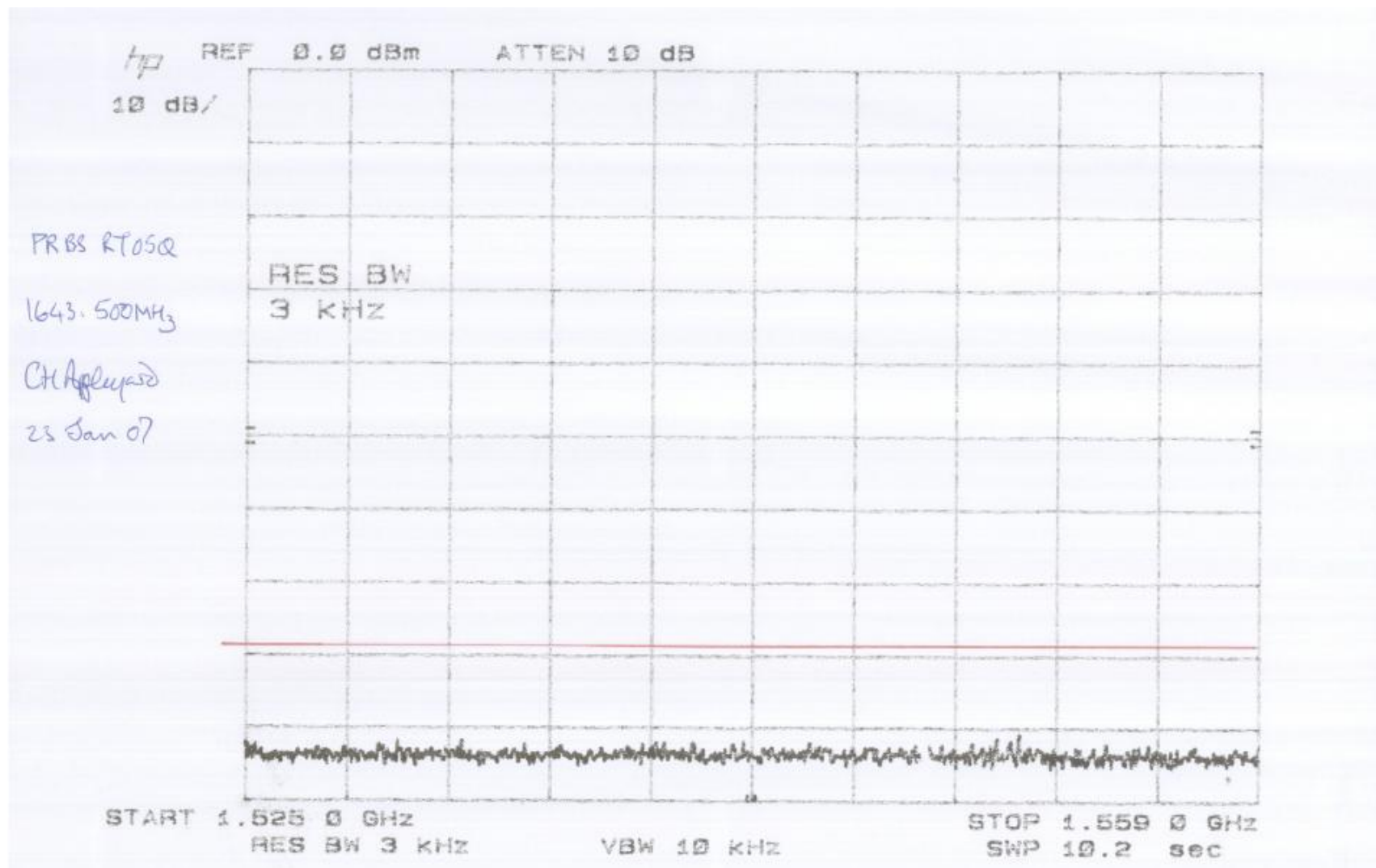


Figure 19 Exhibit 6c_19 - PRBSRT05Q M 1525 - 1559 MHz

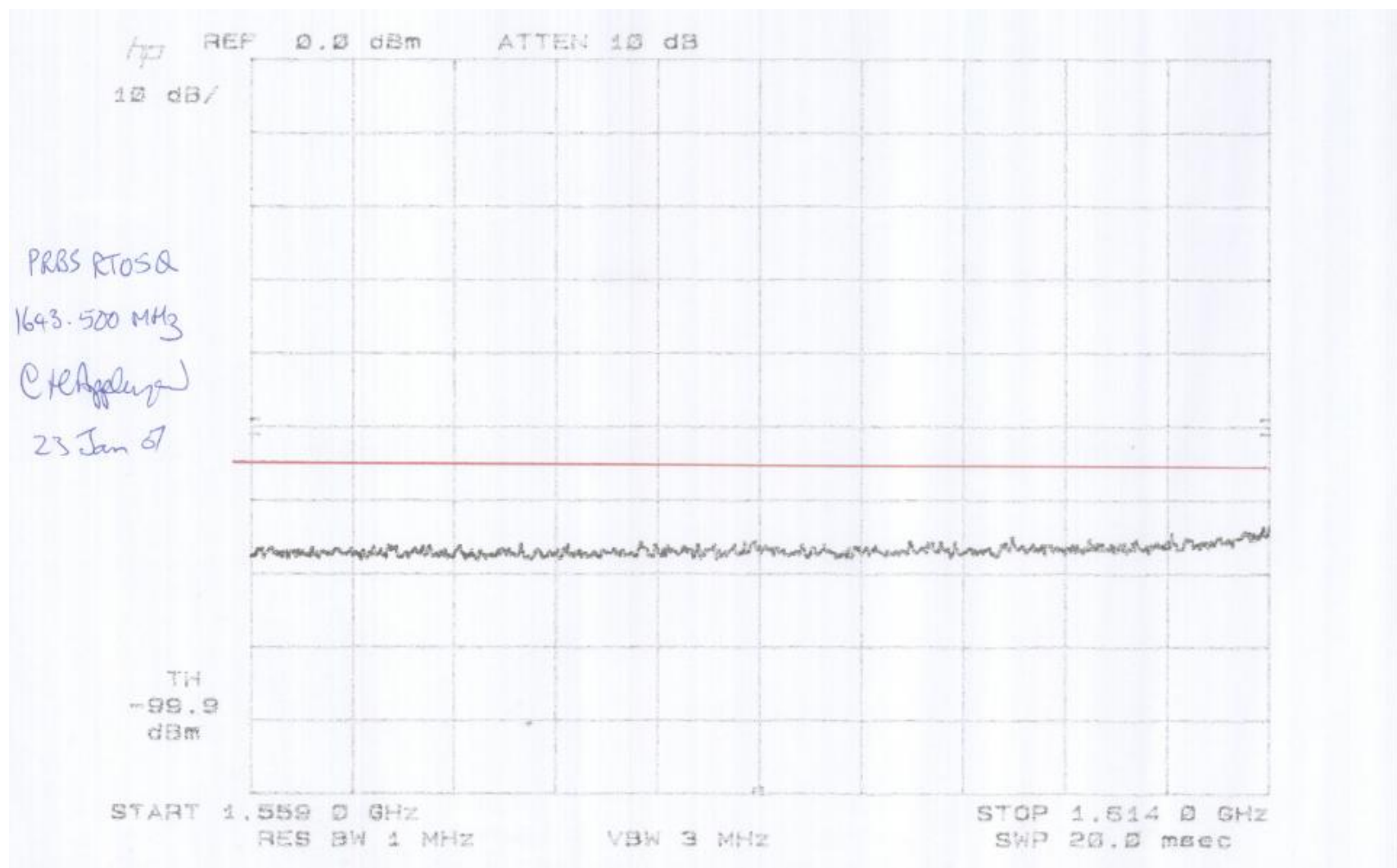


Figure 20 Exhibit 6c_20 - PRBSRT05Q M 1559 - 1614 MHz

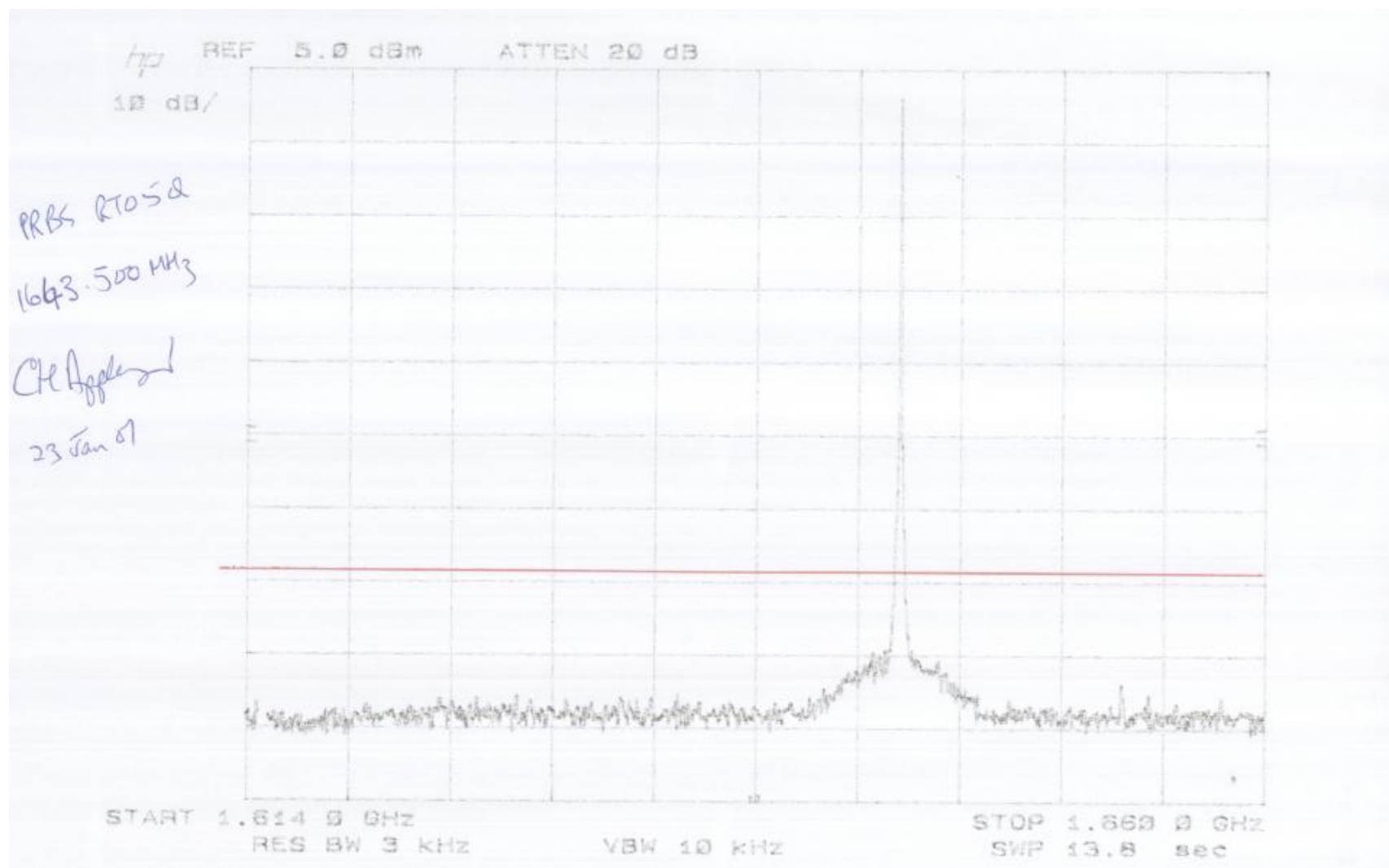


Figure 21 Exhibit 6c_21 - PRBSRT05Q M 1614 - 1660 MHz

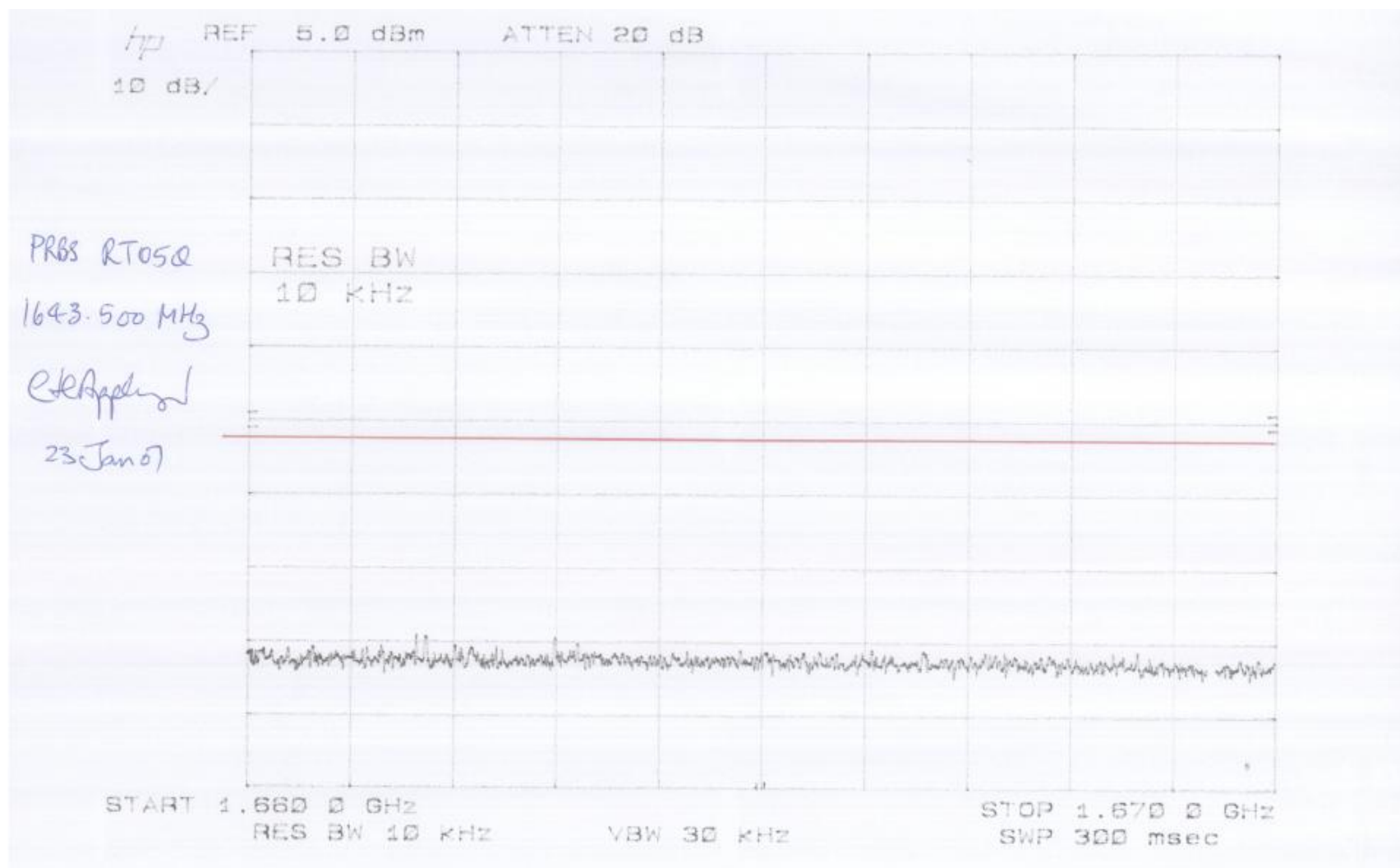


Figure 22 Exhibit 6c_22 - PRBSRT05Q M 1660 - 1670 MHz

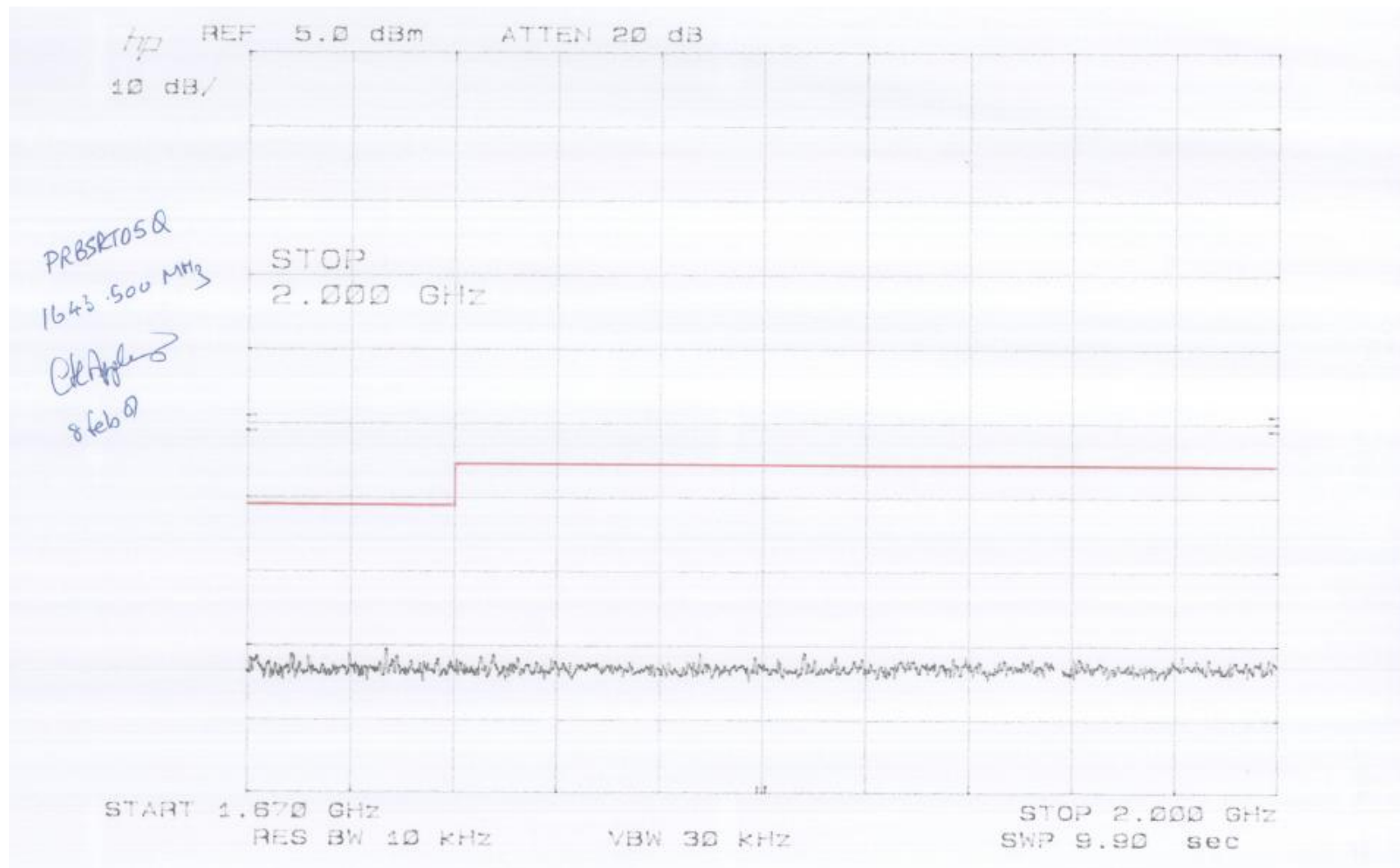


Figure 23 Exhibit 6c_23 - PRBSRT05Q M 1670 - 2000 MHz

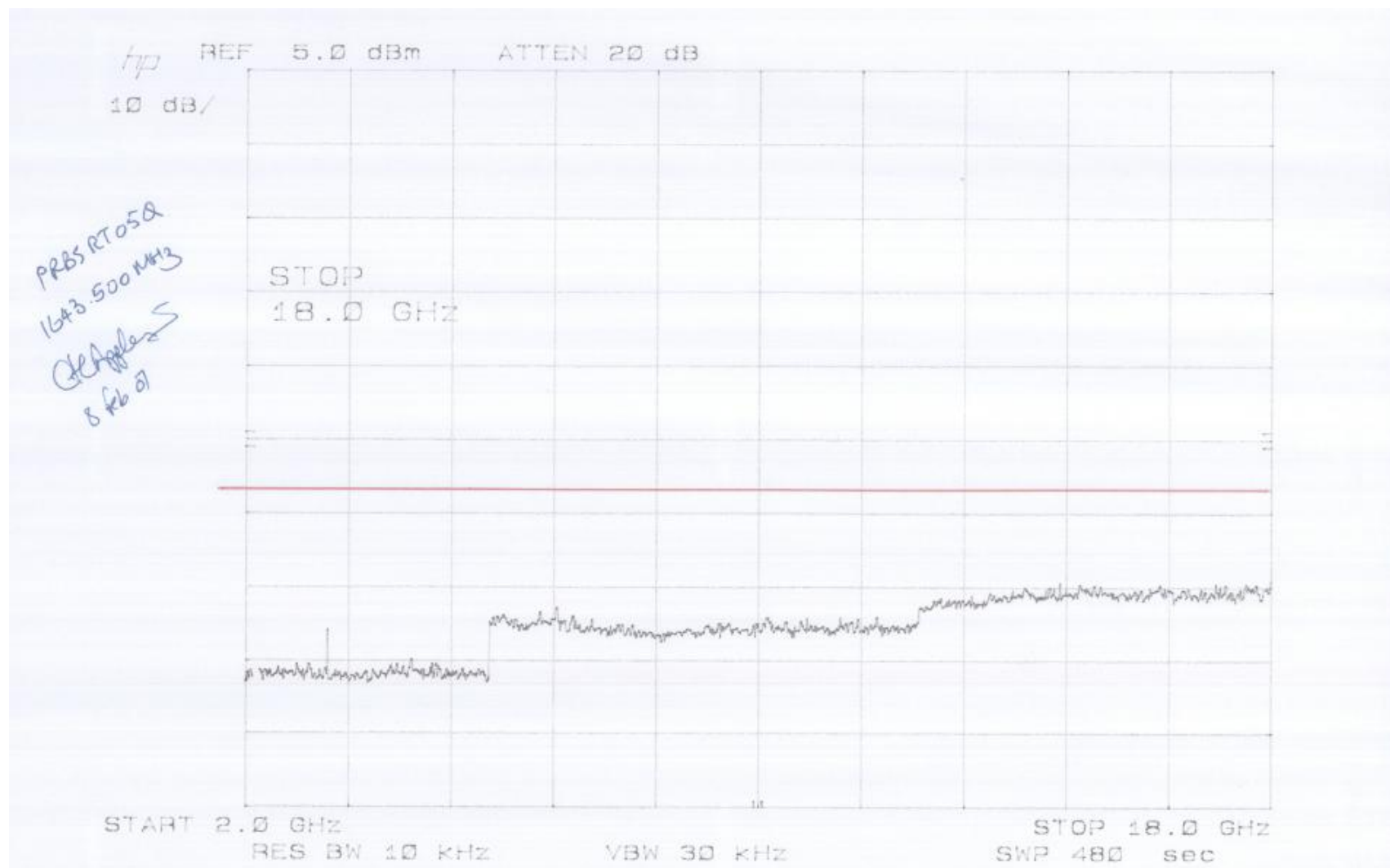


Figure 24 Exhibit 6c_23 - PRBSRT05Q M 1670 - 2000 MHz

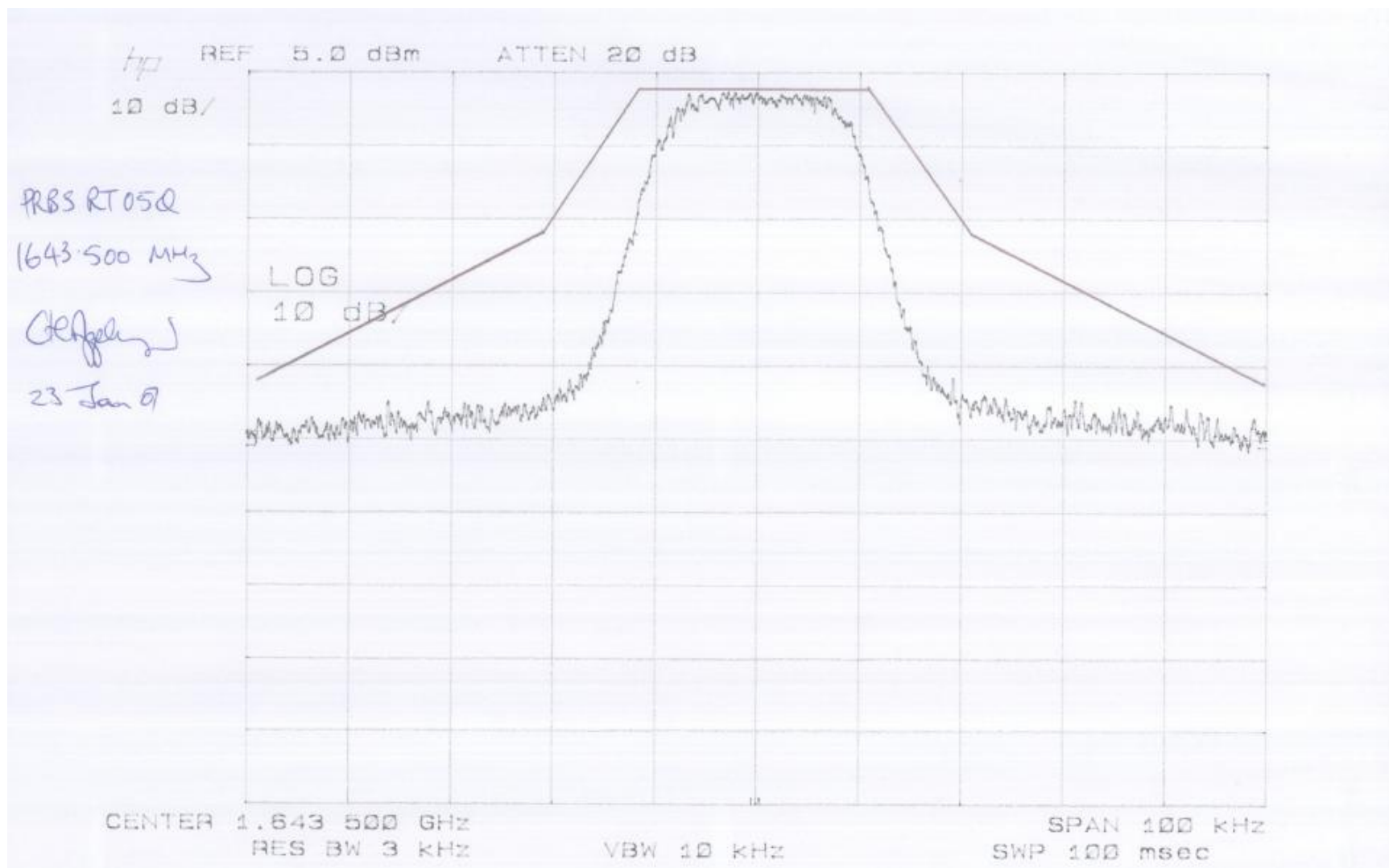


Figure 25 Exhibit 6c_23 - PRBSRT05Q M 1670 - 2000 MHz

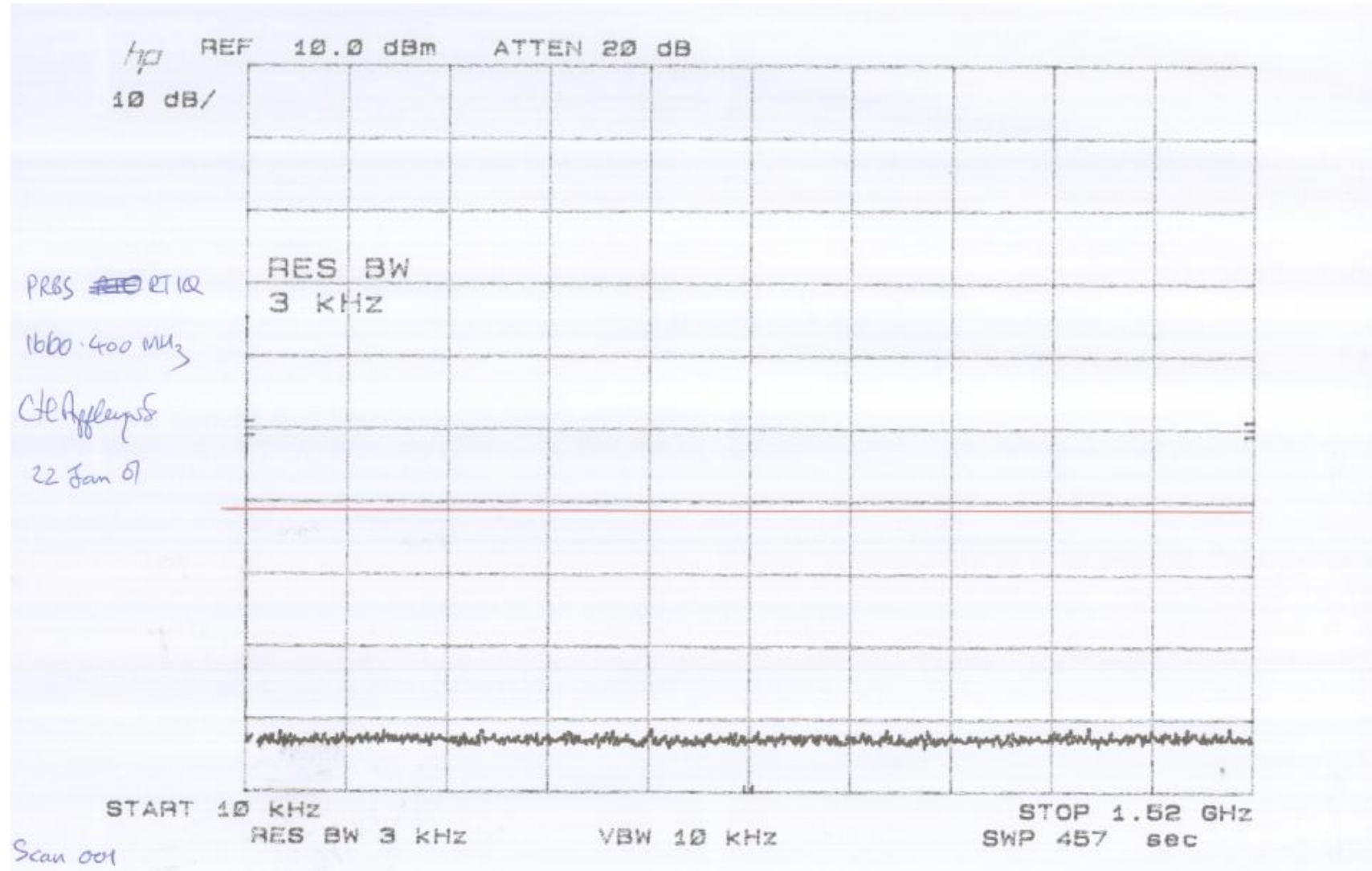


Figure 26 Exhibit 6c_26 - PRBSRT1Q H 10KHz - 1525 MHz

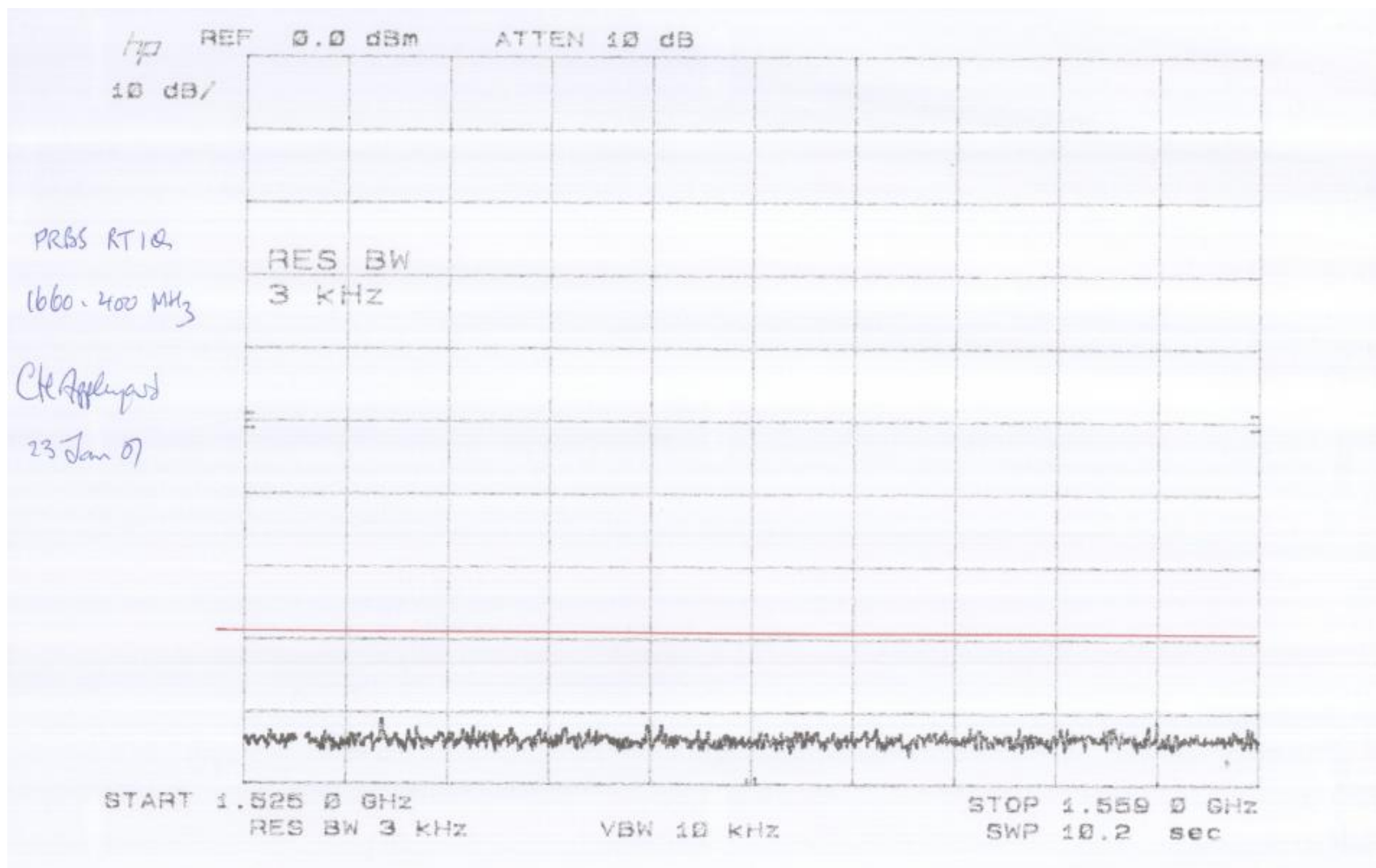


Figure 27 Exhibit 6c_27 - PRBSRT1Q H 1525 - 1559 MHz

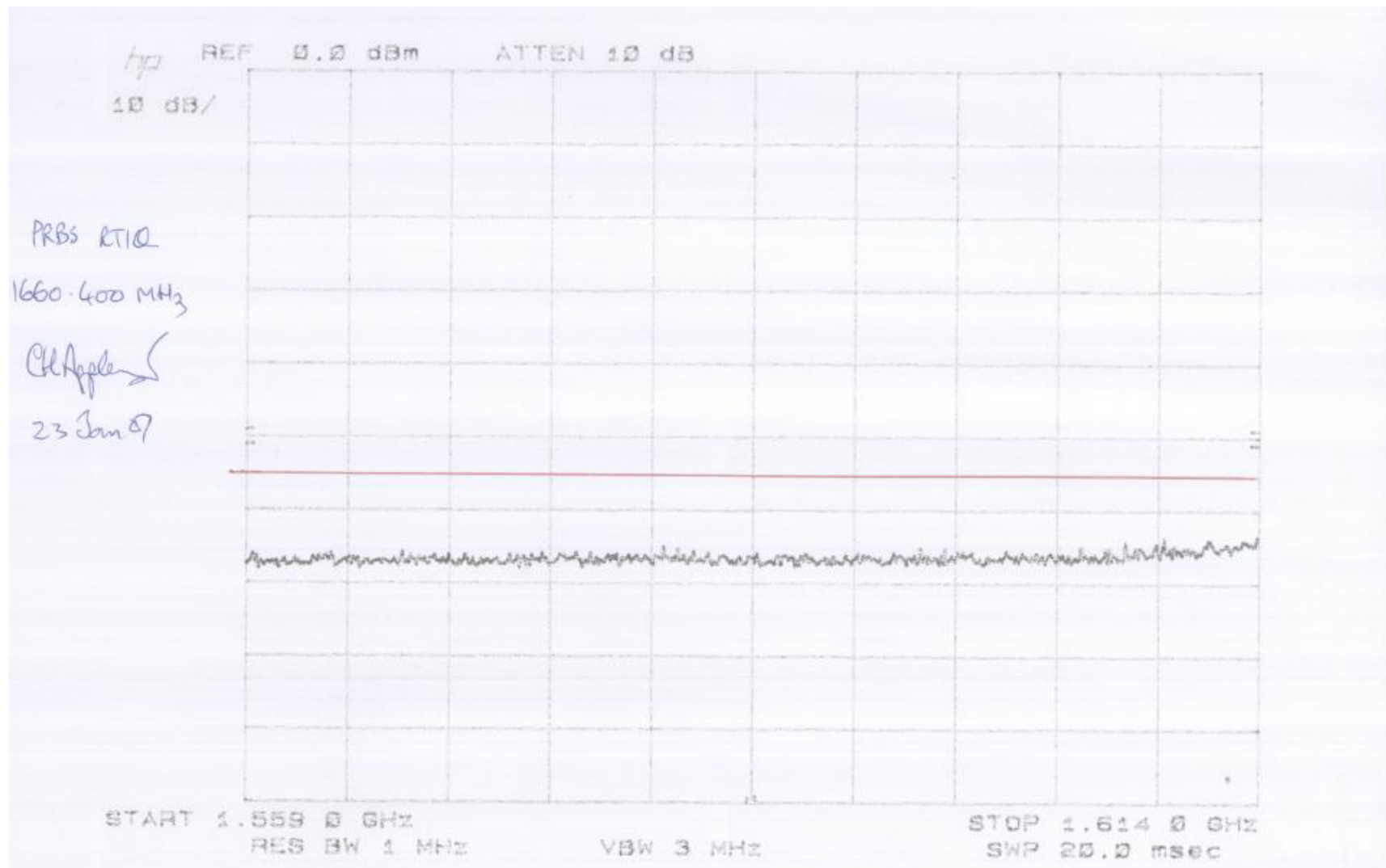


Figure 28 Exhibit 6c_28 - PRBSRT1Q H 1559 - 1614 MHz

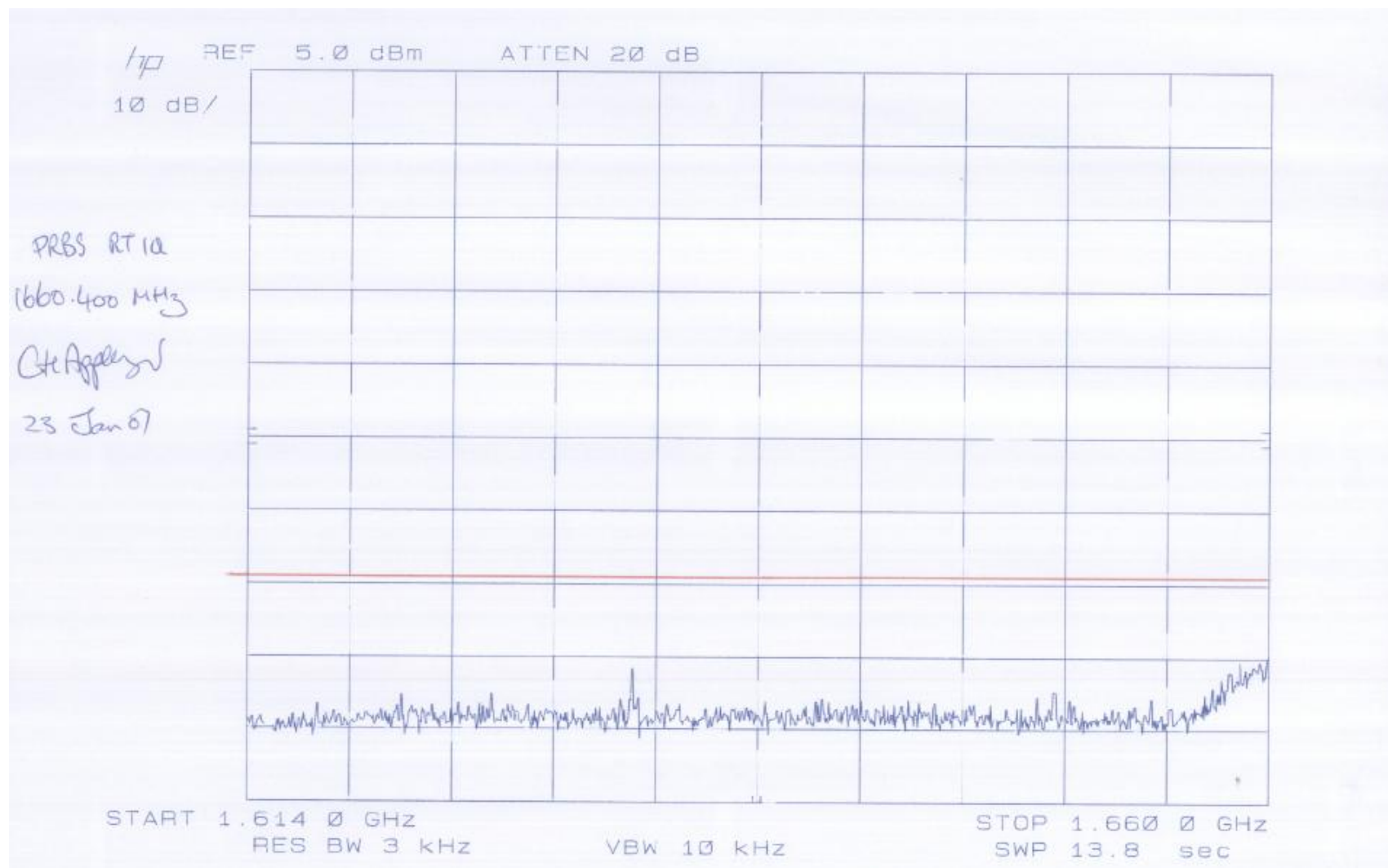


Figure 29 Exhibit 6c_29 - PRBSRT1Q H 1614 - 1660 MHz

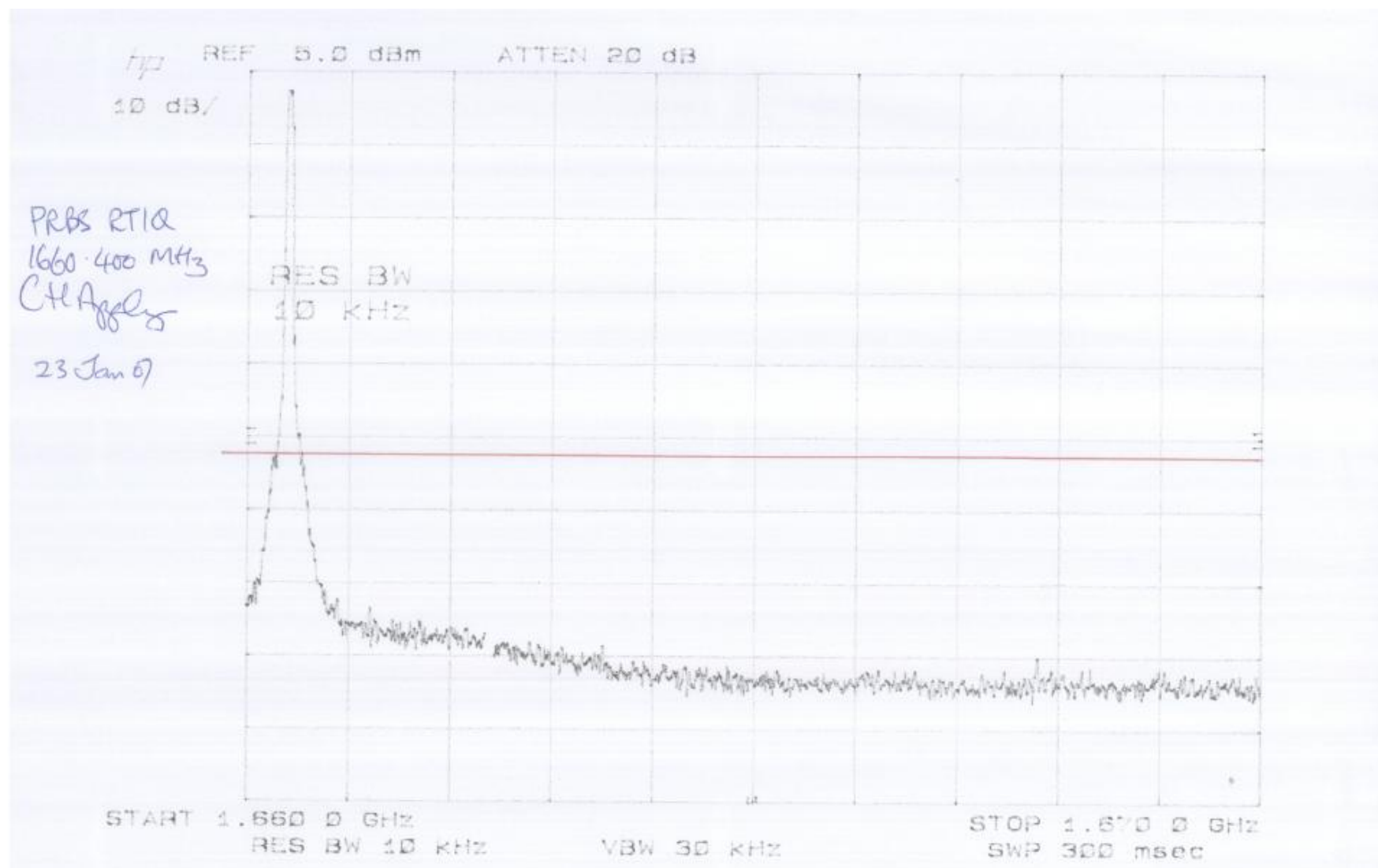


Figure 30 Exhibit 6c_30 - PRBSRT1Q H 1660 - 1670 MHz

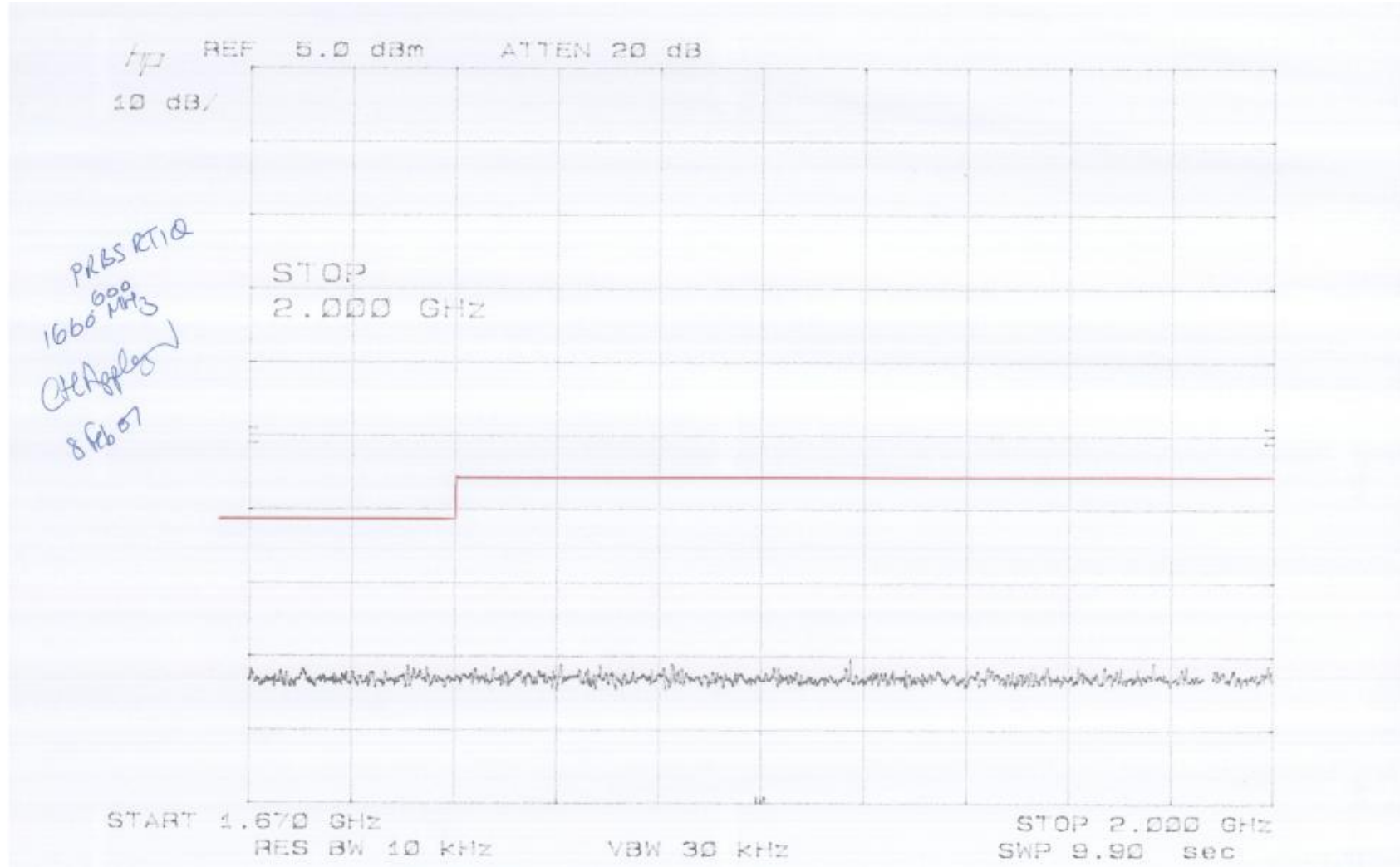


Figure 31 Exhibit 6c_31 - PRBSRT1Q H 1670 - 2000 MHz

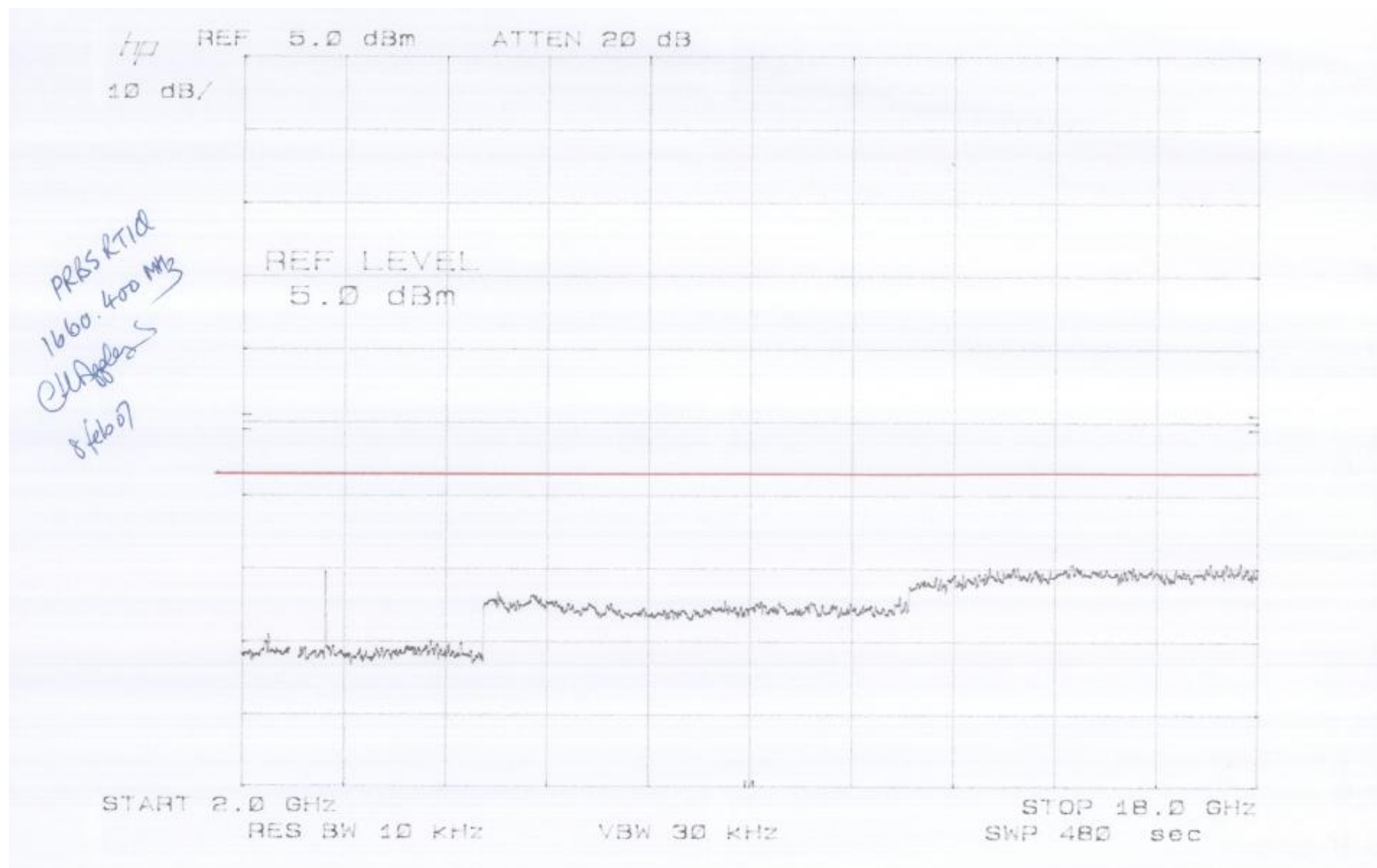


Figure 32 Exhibit 6c_32 - PRBSRT1Q H 2 - 18 GHz

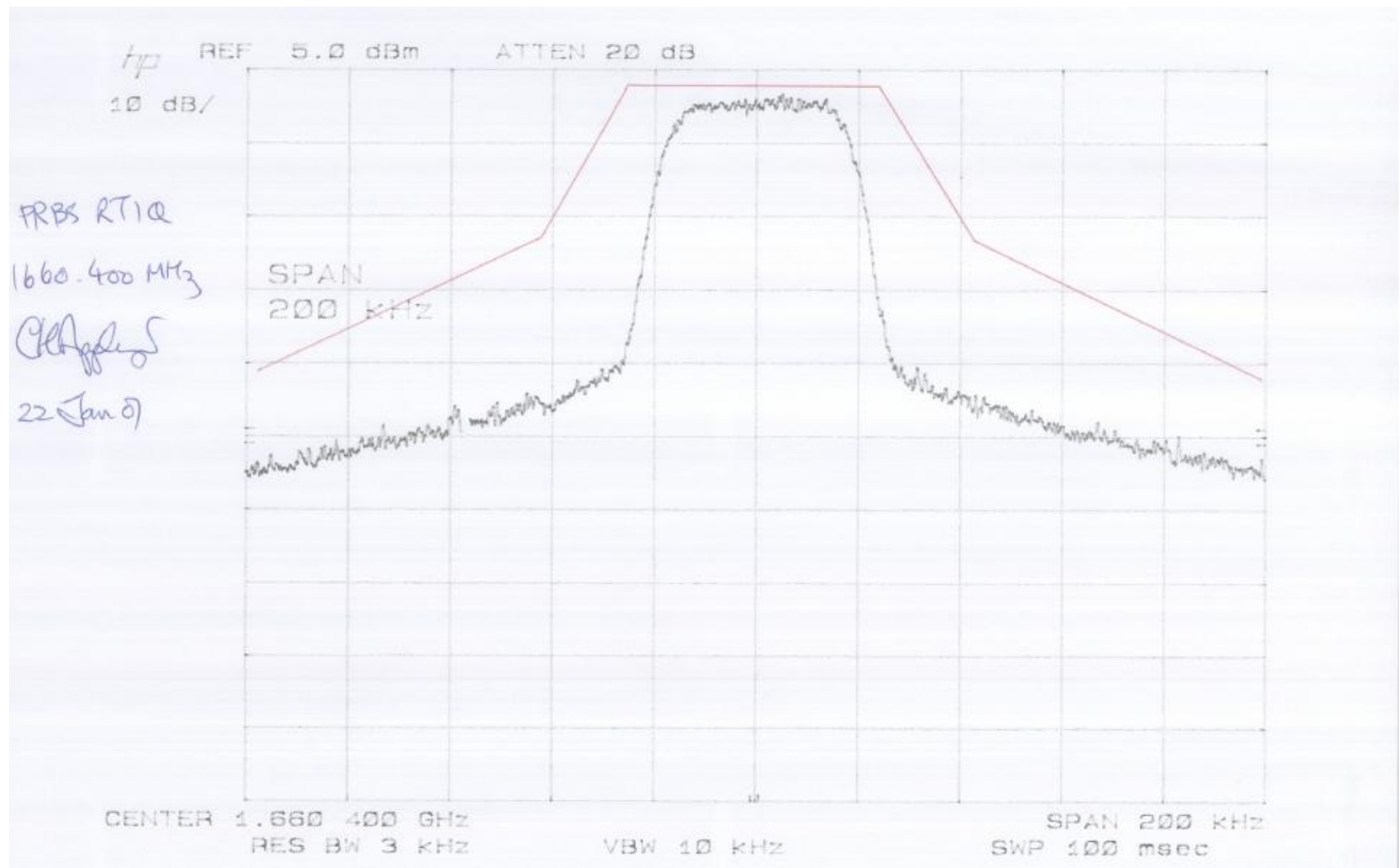


Figure 33 Exhibit 6c_33 - PRBSRT1Q H Span 200 KHz

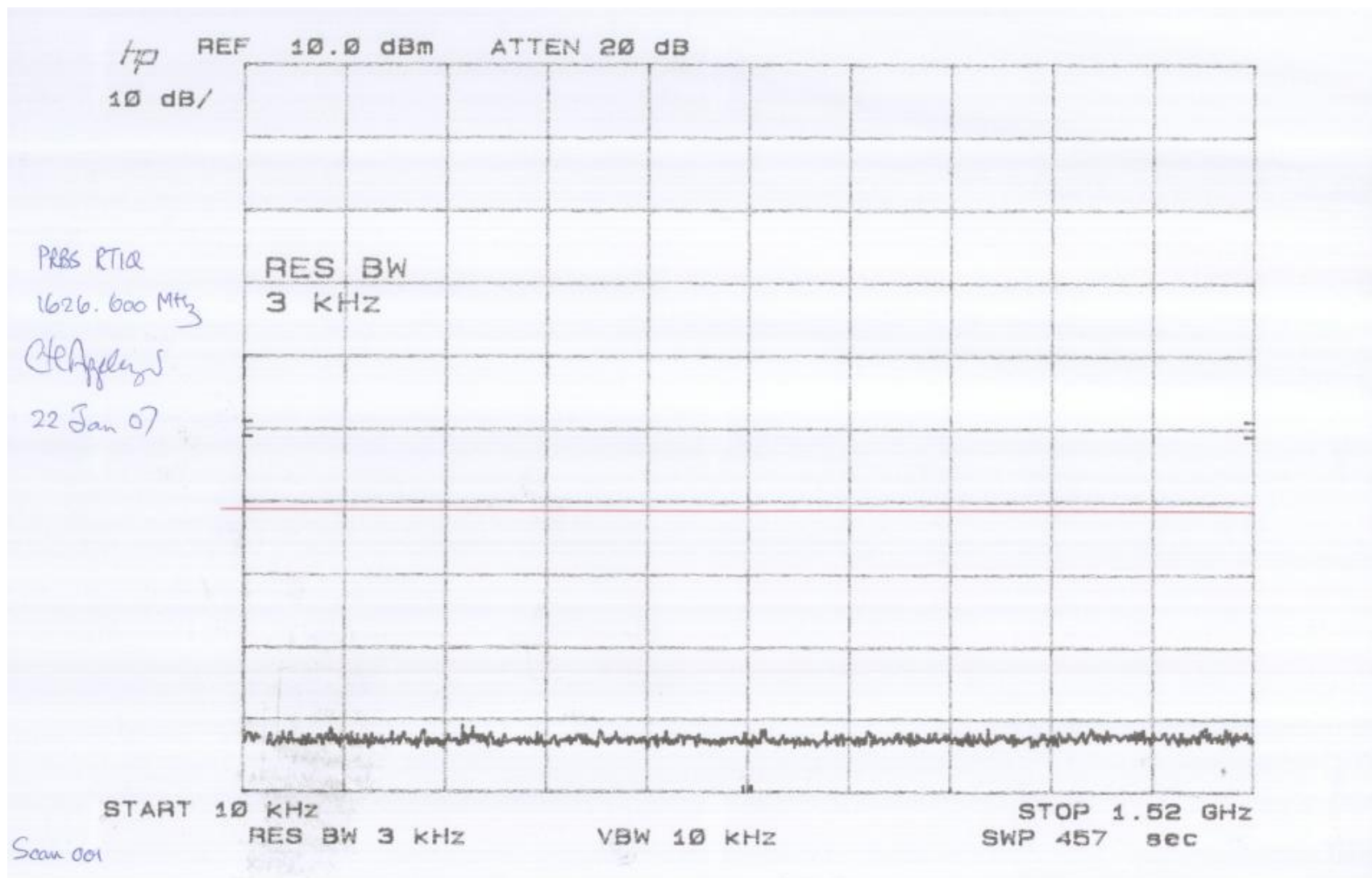


Figure 34 Exhibit 6c_34 - PRBSRT1Q L 10KHz - 1525 MHz

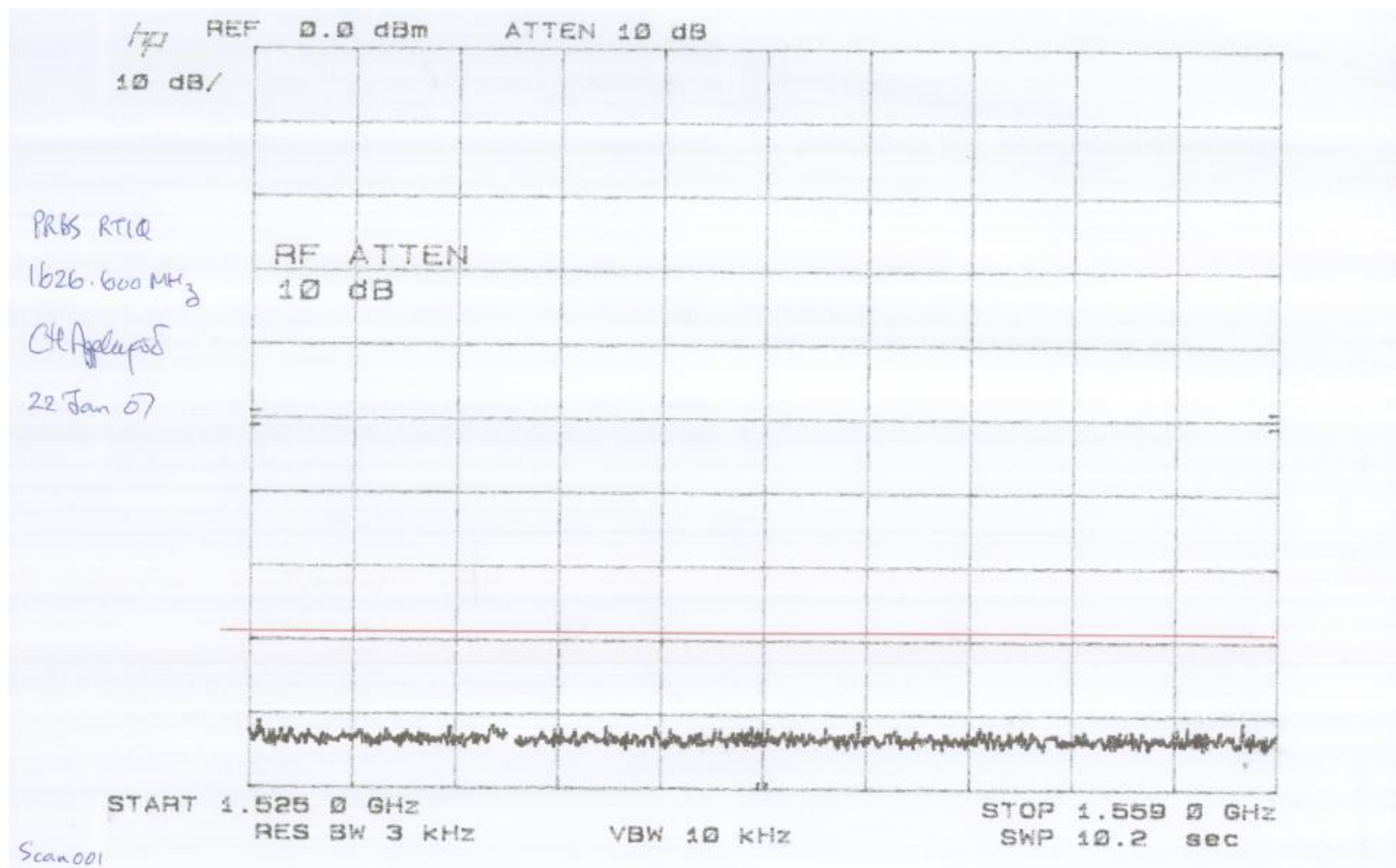


Figure 35 Exhibit 6c_35 - PRBSRT1Q L 1525 - 1559 MHz

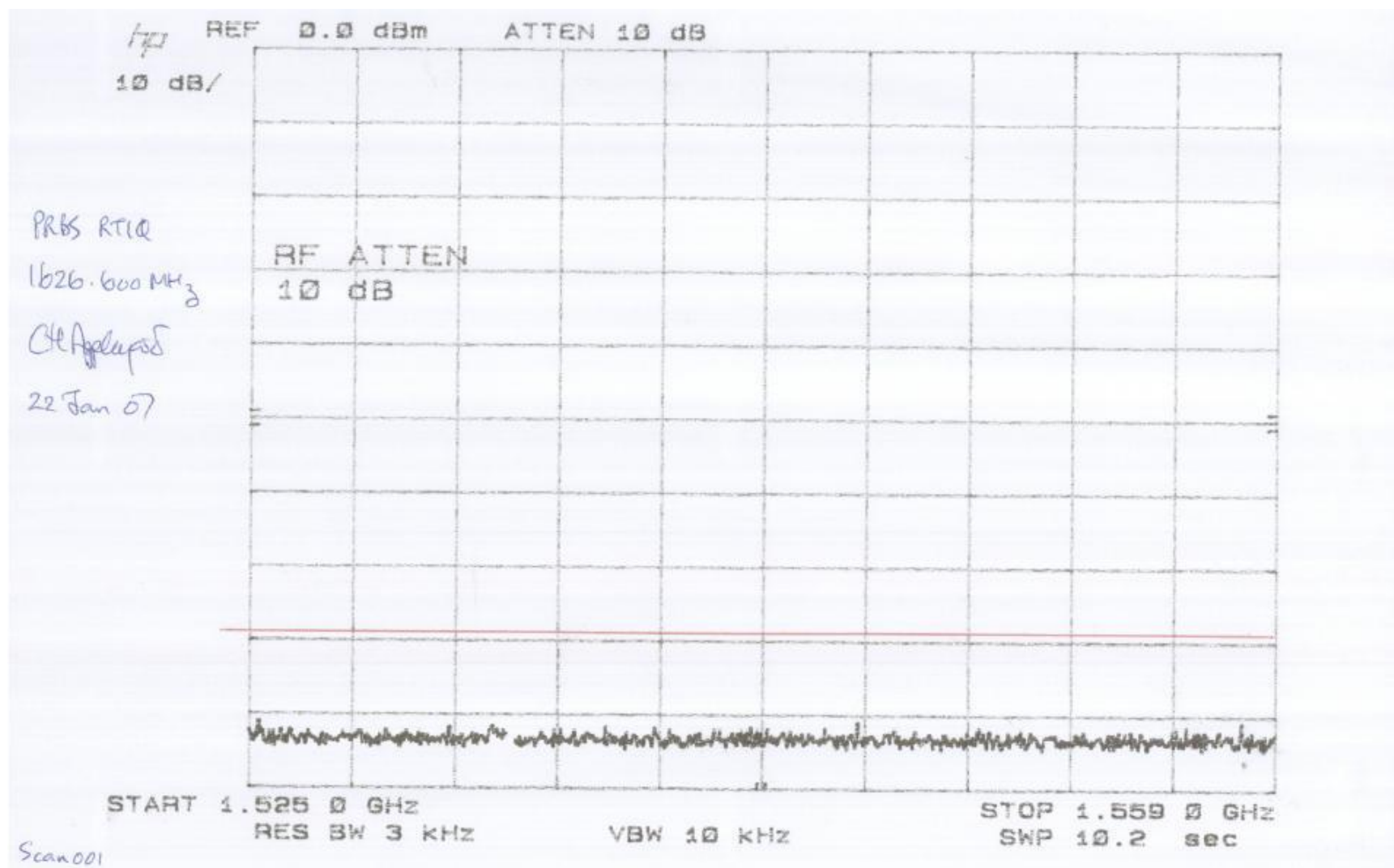


Figure 36 Exhibit 6c_36 - PRBSRT1Q L 1559 - 1614 MHz

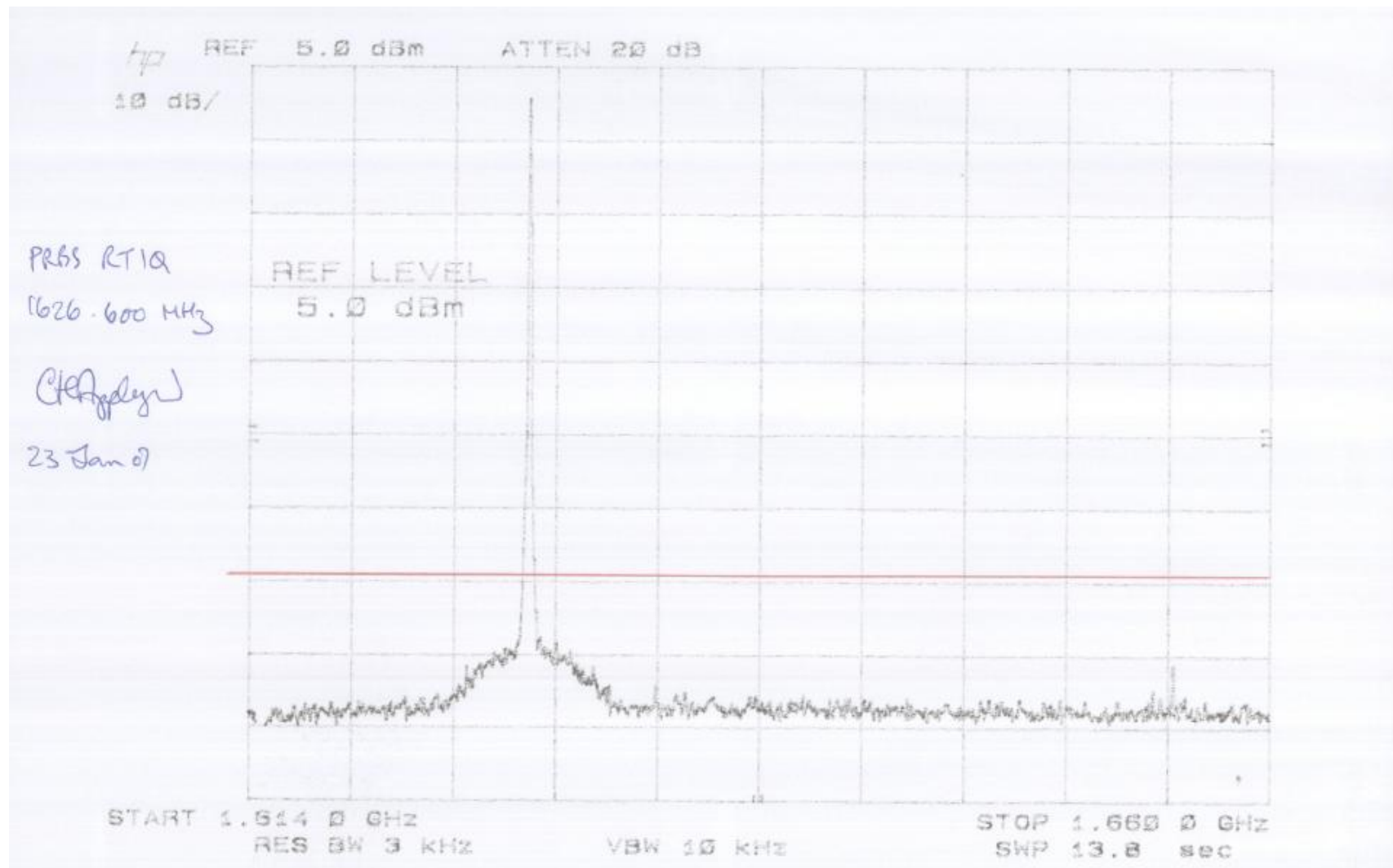


Figure 37 Exhibit 6c_37 - PRBSRT1Q L 1614 - 1660 MHz

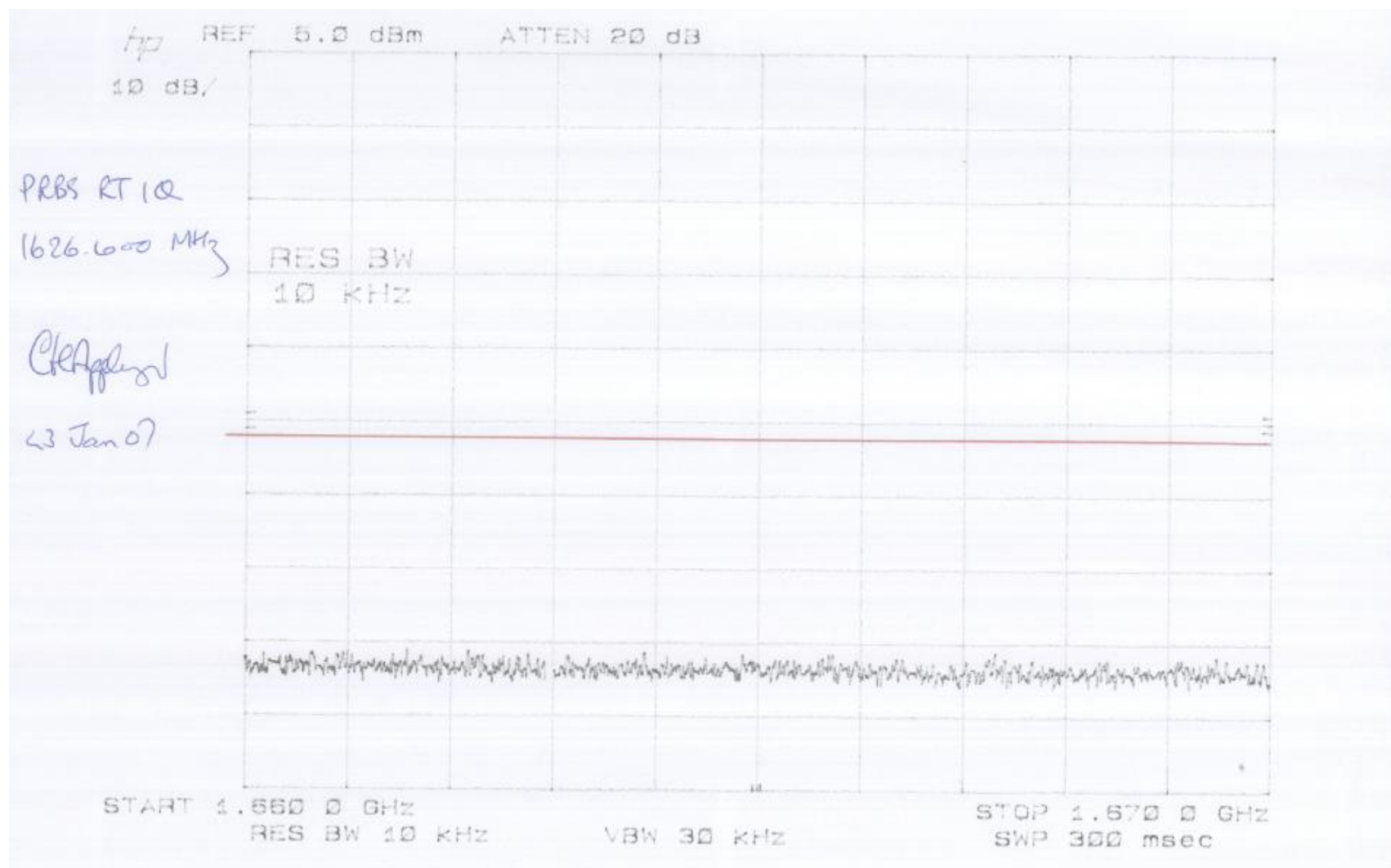


Figure 38 Exhibit 6c_38 - PRBSRT1Q L 1660 - 1670 MHz

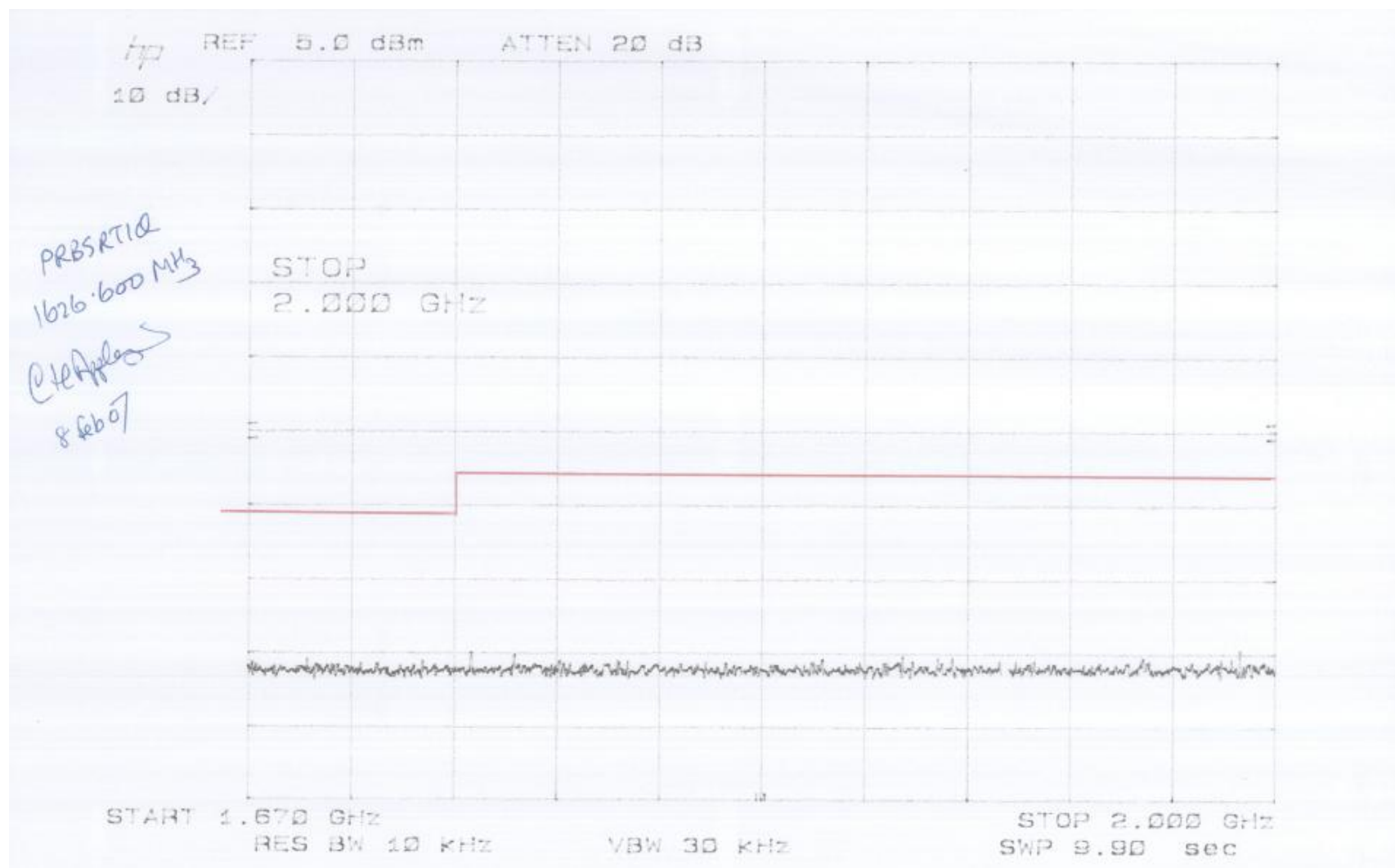


Figure 39 Exhibit 6c_39 - PRBSRT1Q L 1670 - 2000 MHz

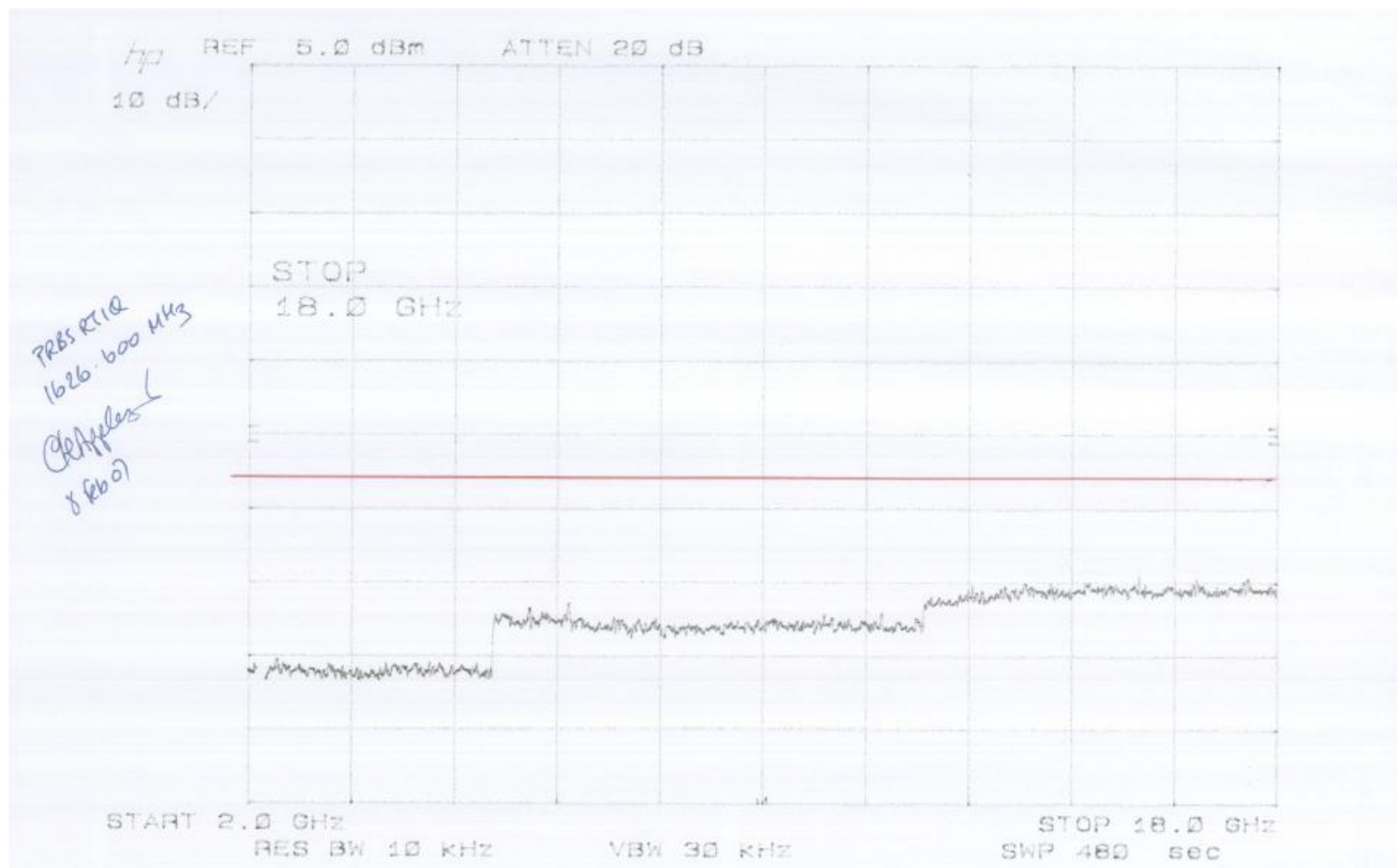


Figure 40 Exhibit 6c_40 - PRBSRT1Q L 2 - 18 GHz

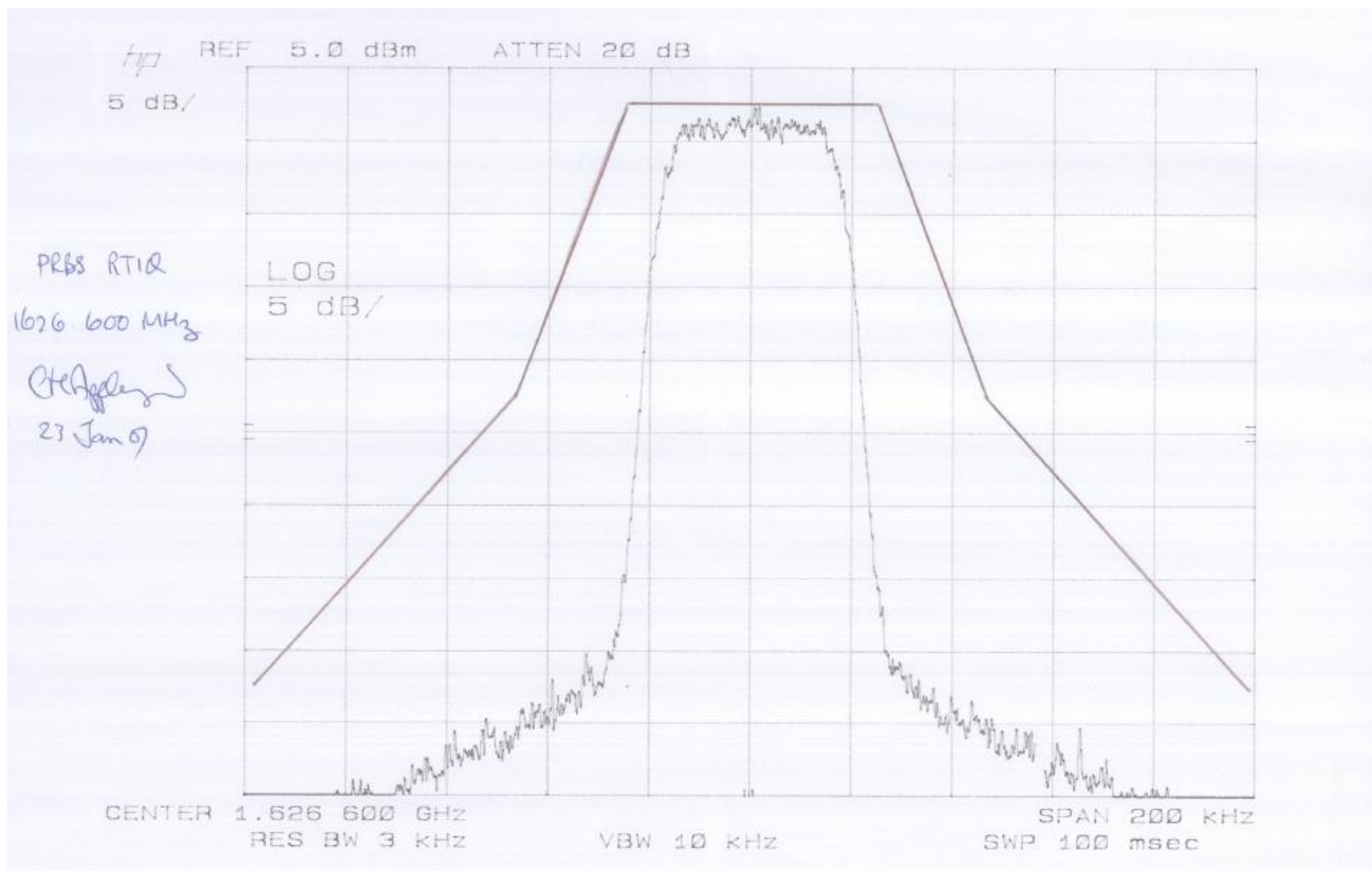


Figure 41 Exhibit 6c_41 - PRBSRT1Q L Span 200 KHz

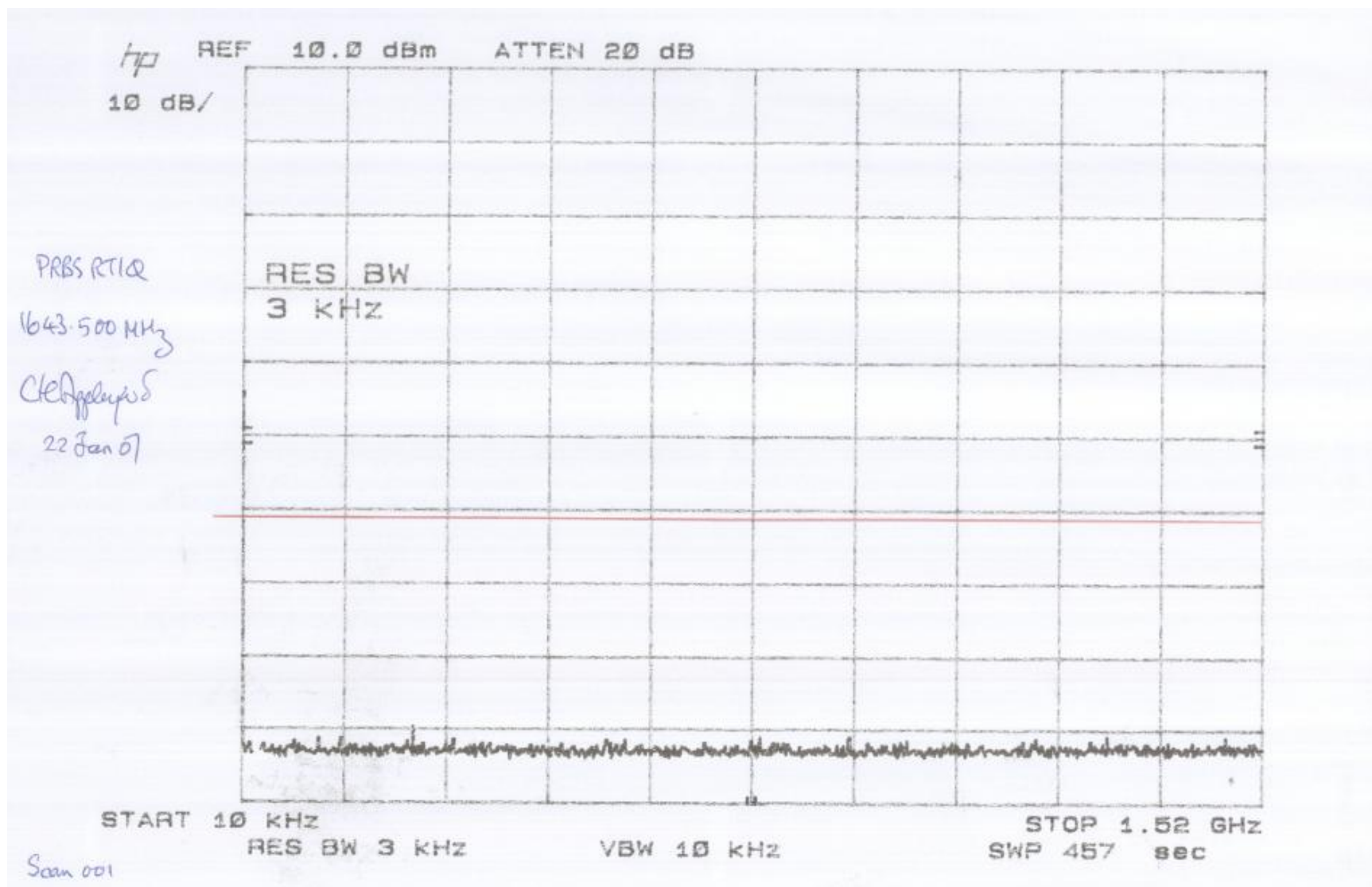


Figure 42 Exhibit 6c_42 - PRBSRT1Q M 10KHz - 1525 MHz

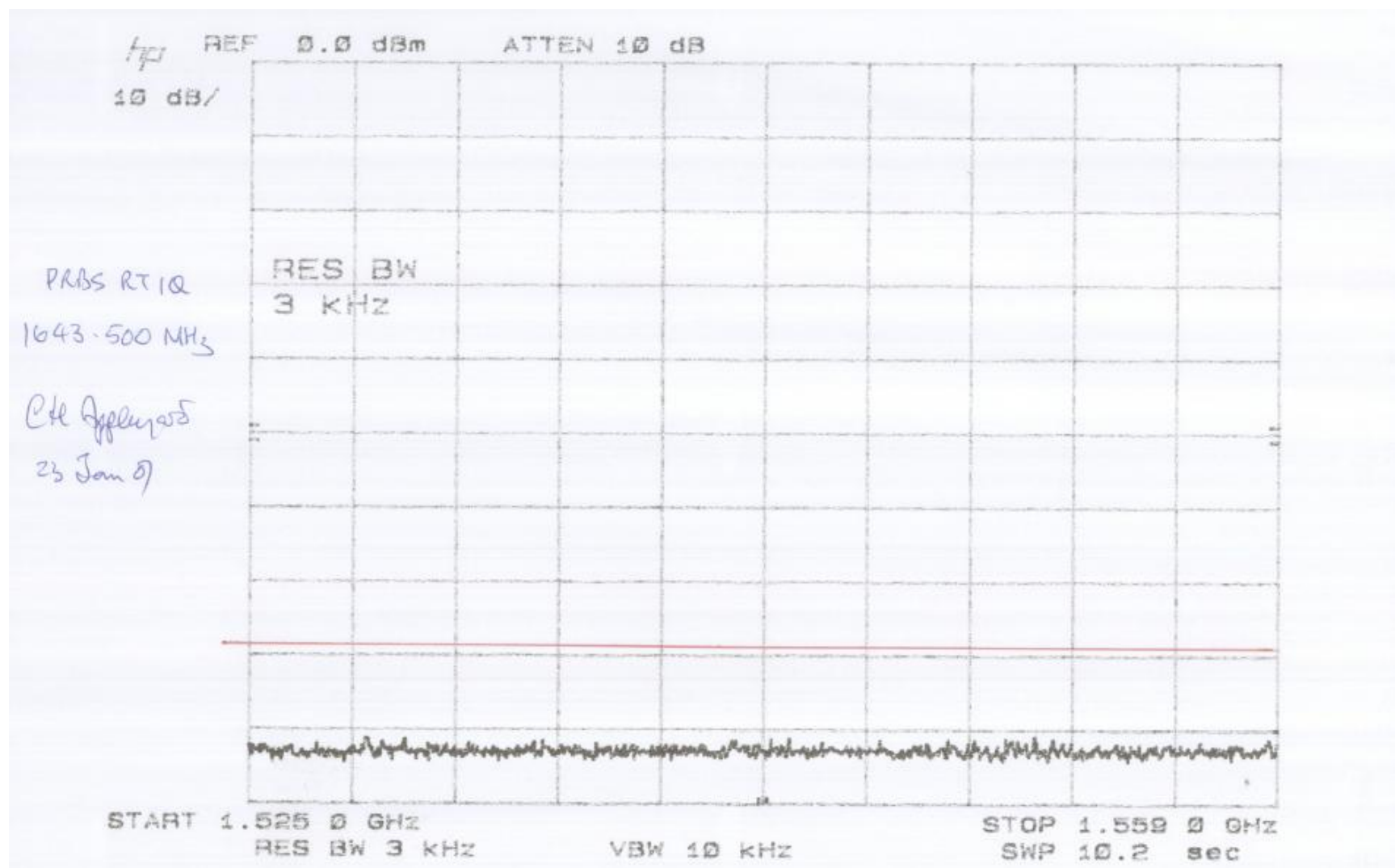


Figure 43 Exhibit 6c_43 - PRBSRT1Q M 1525 - 1559 MHz

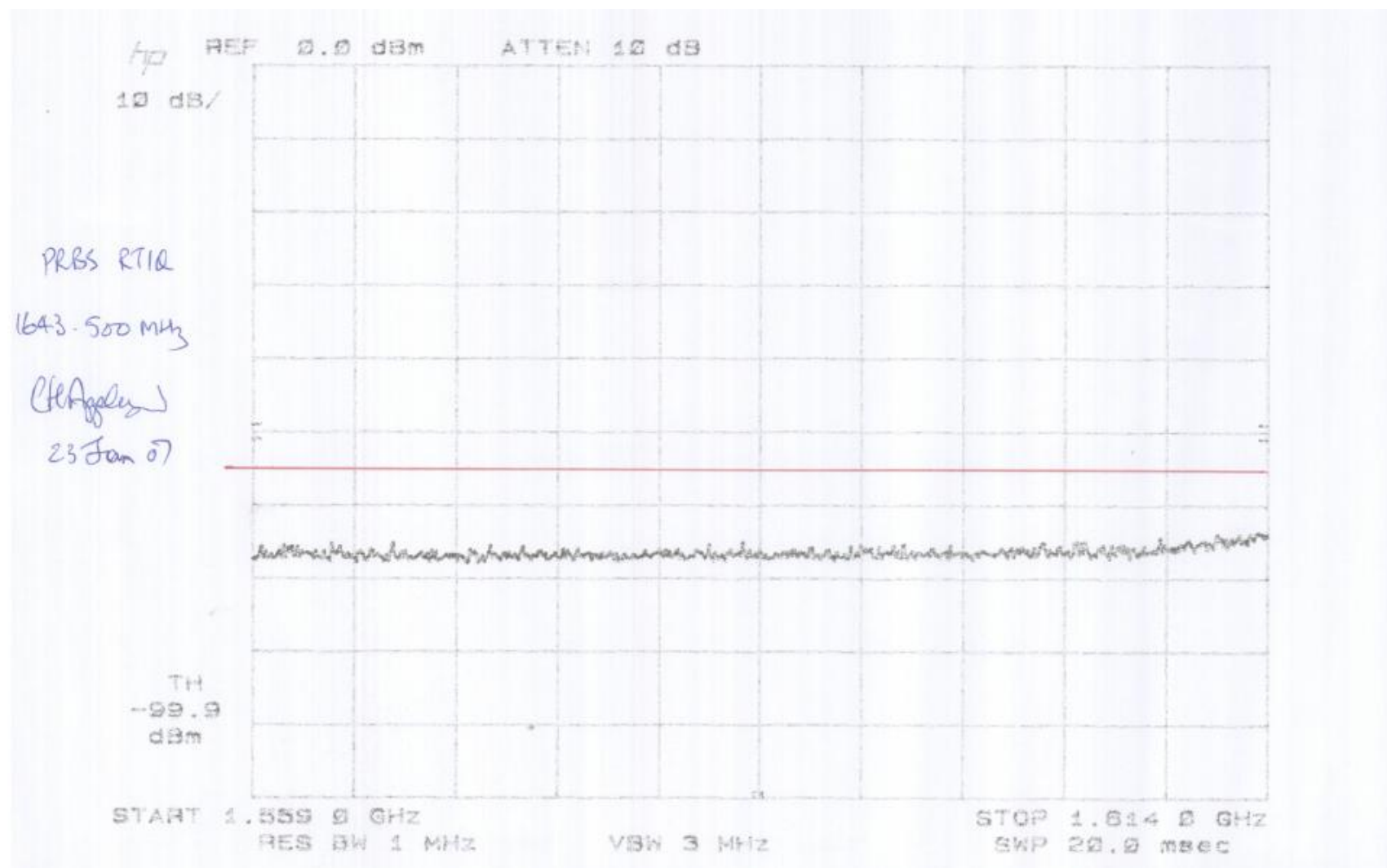


Figure 44 Exhibit 6c_44 - PRBSRT1Q M 1559 - 1614 MHz

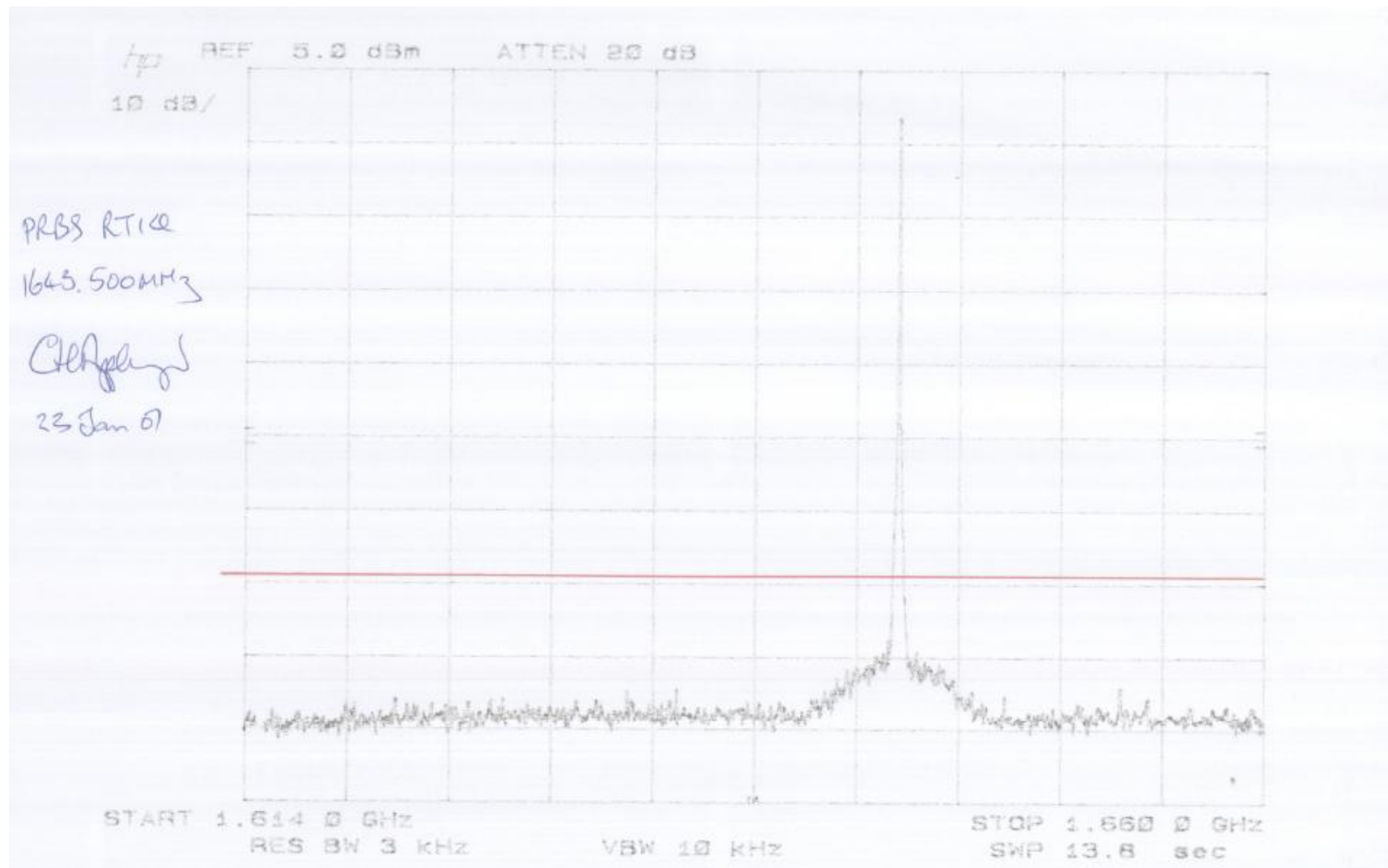


Figure 45 Exhibit 6c_45 - PRBSRT1Q M 1614 - 1660 MHz

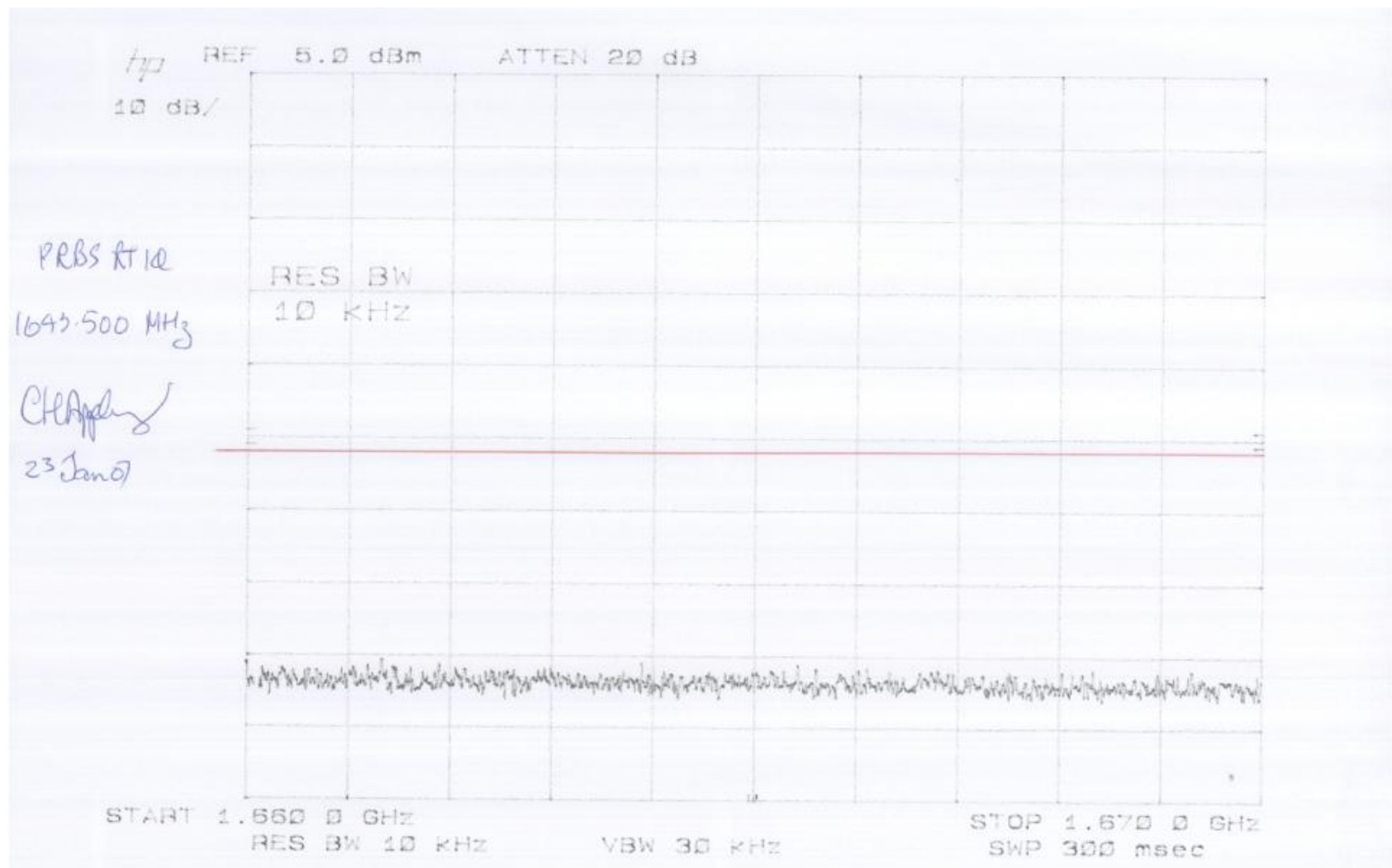


Figure 46 Exhibit 6c_46 - PRBSRT1Q M 1660 - 1670 MHz

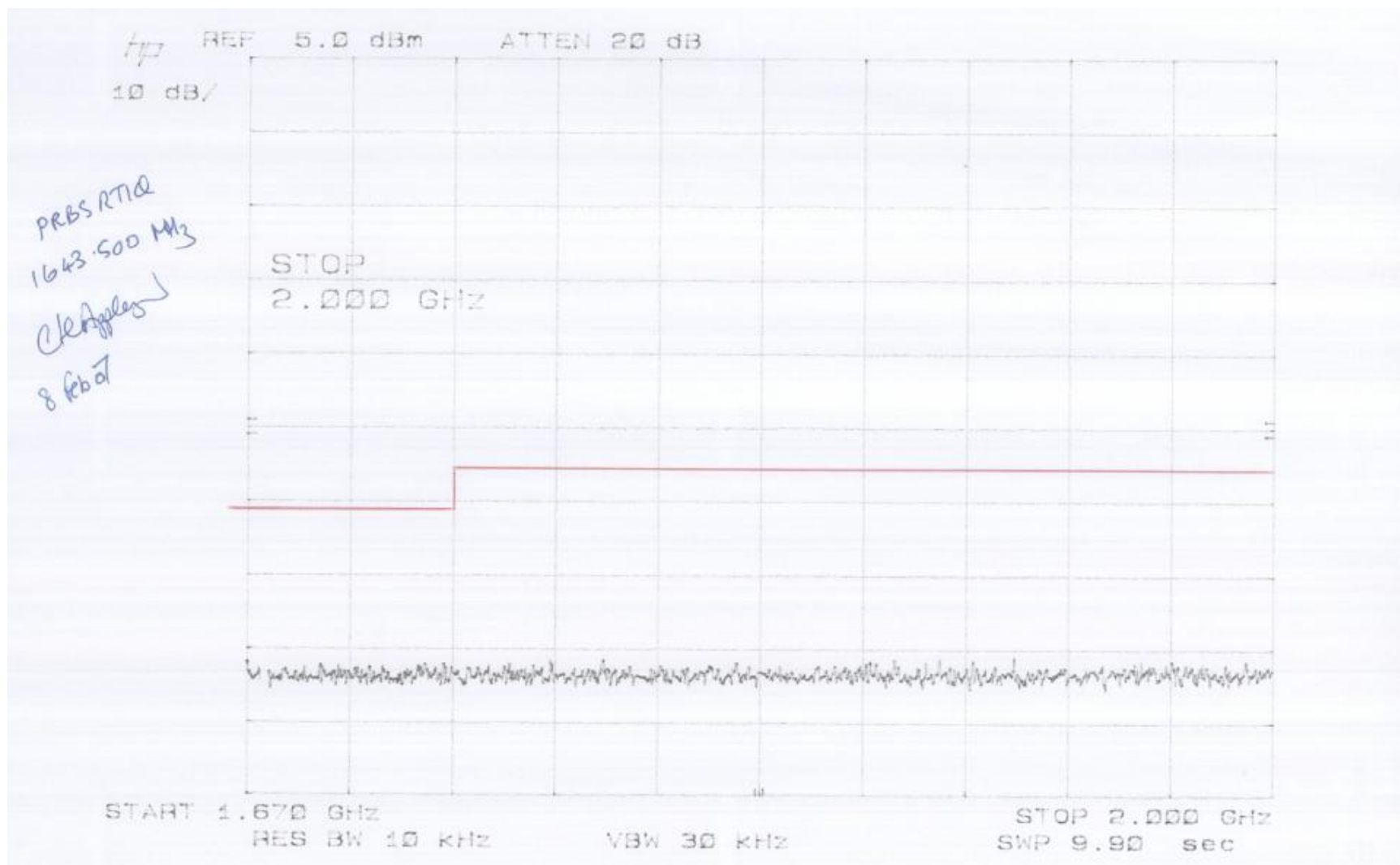


Figure 47 Exhibit 6c_47 - PRBSRT1Q M 1670 - 2000 MHz

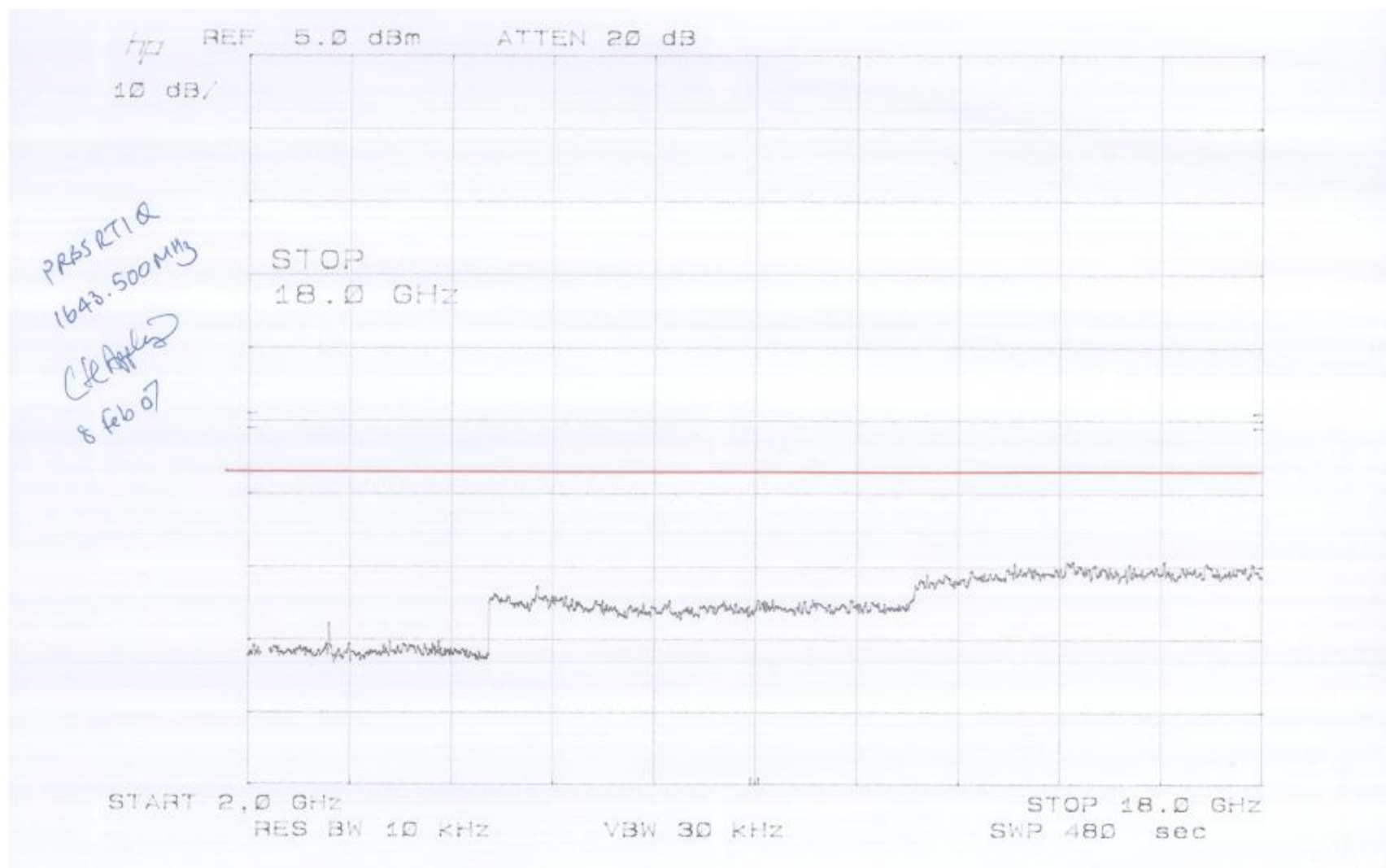


Figure 48 Exhibit 6c_48 - PRBSRT1Q M 2 - 18 GHz

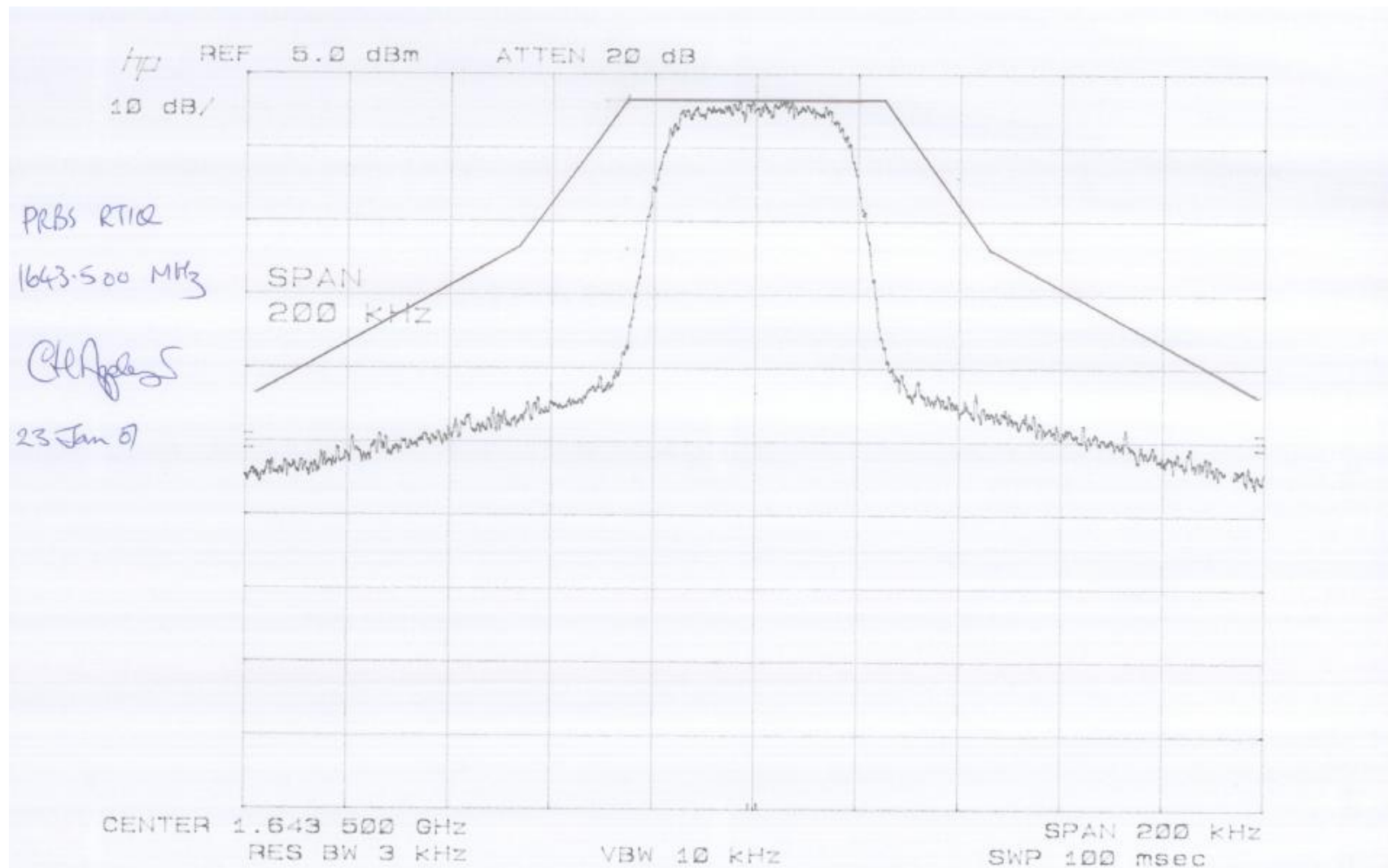


Figure 49 Exhibit 6c_49 - PRBSRT1Q M Span 200 KHz

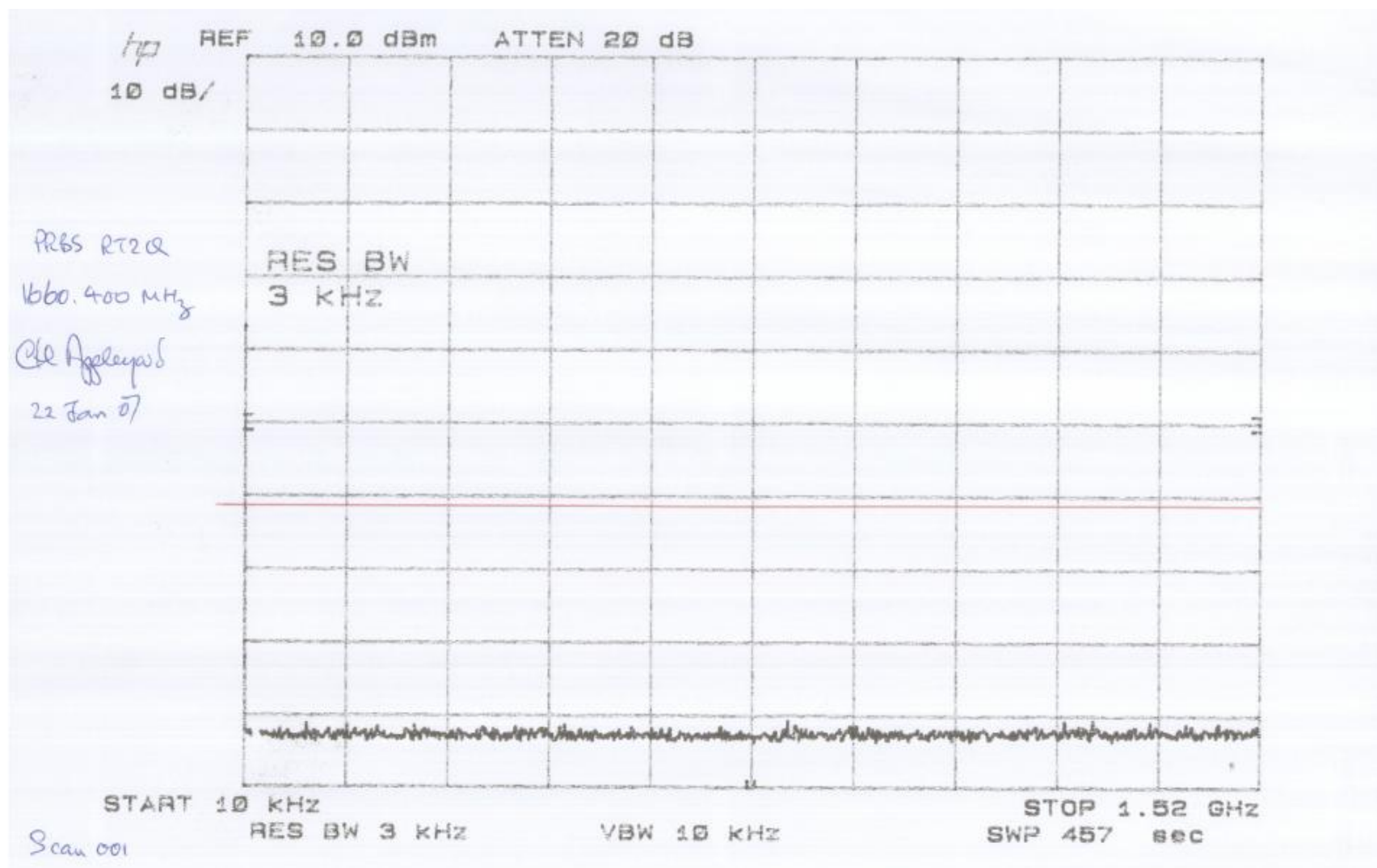


Figure 50 Exhibit 6c_50 - PRBSRT2Q H 10KHz - 1525 MHz