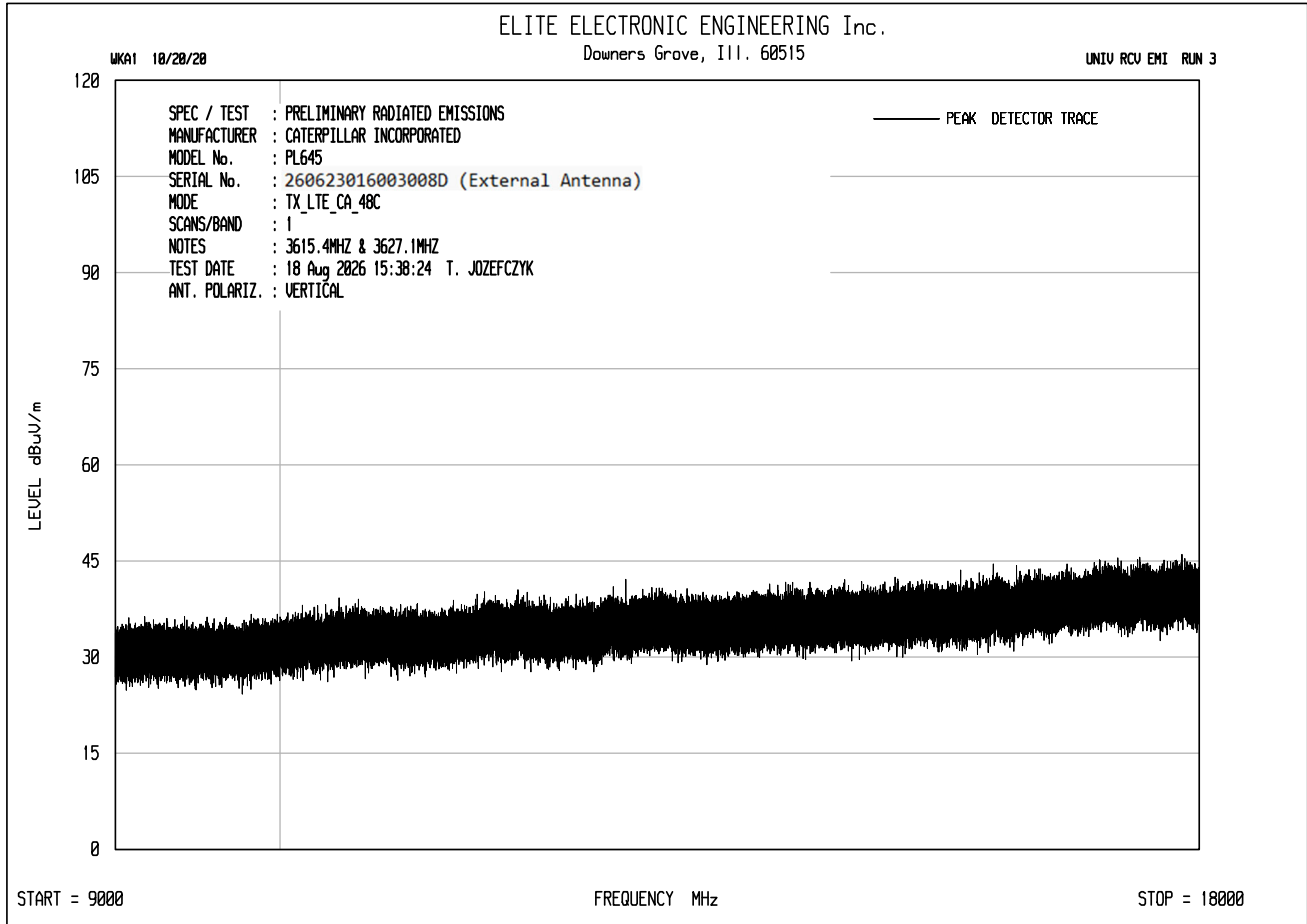
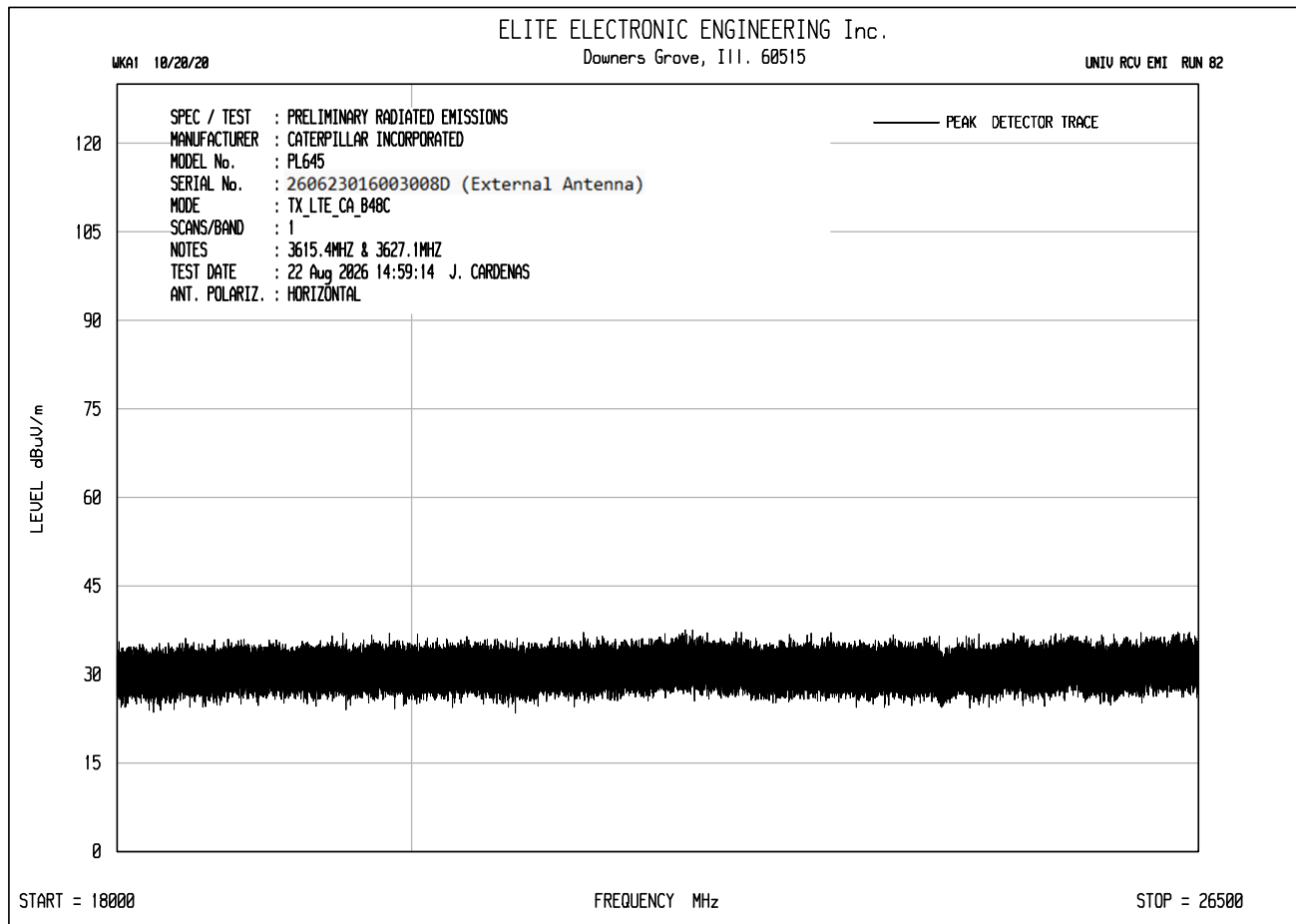
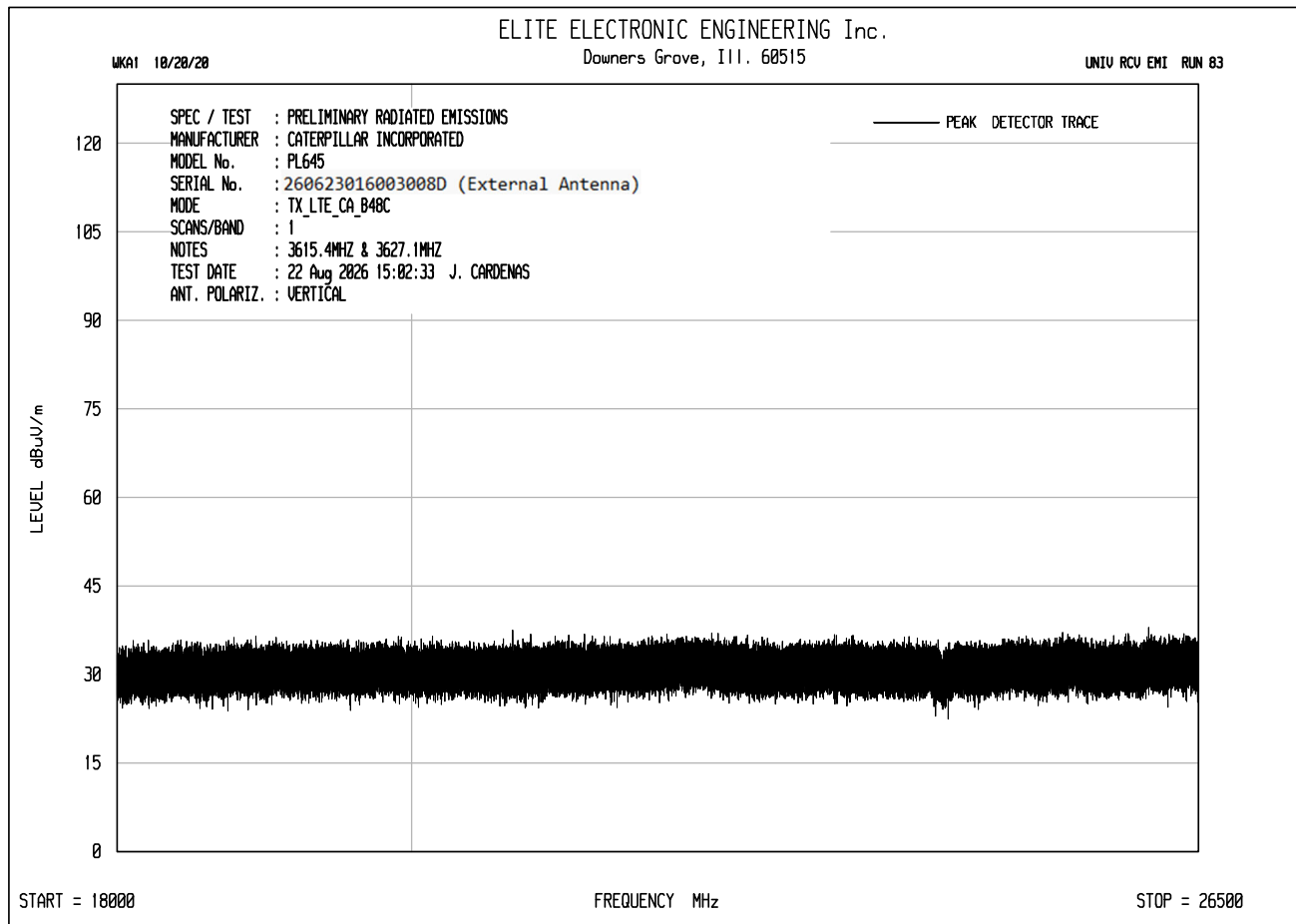
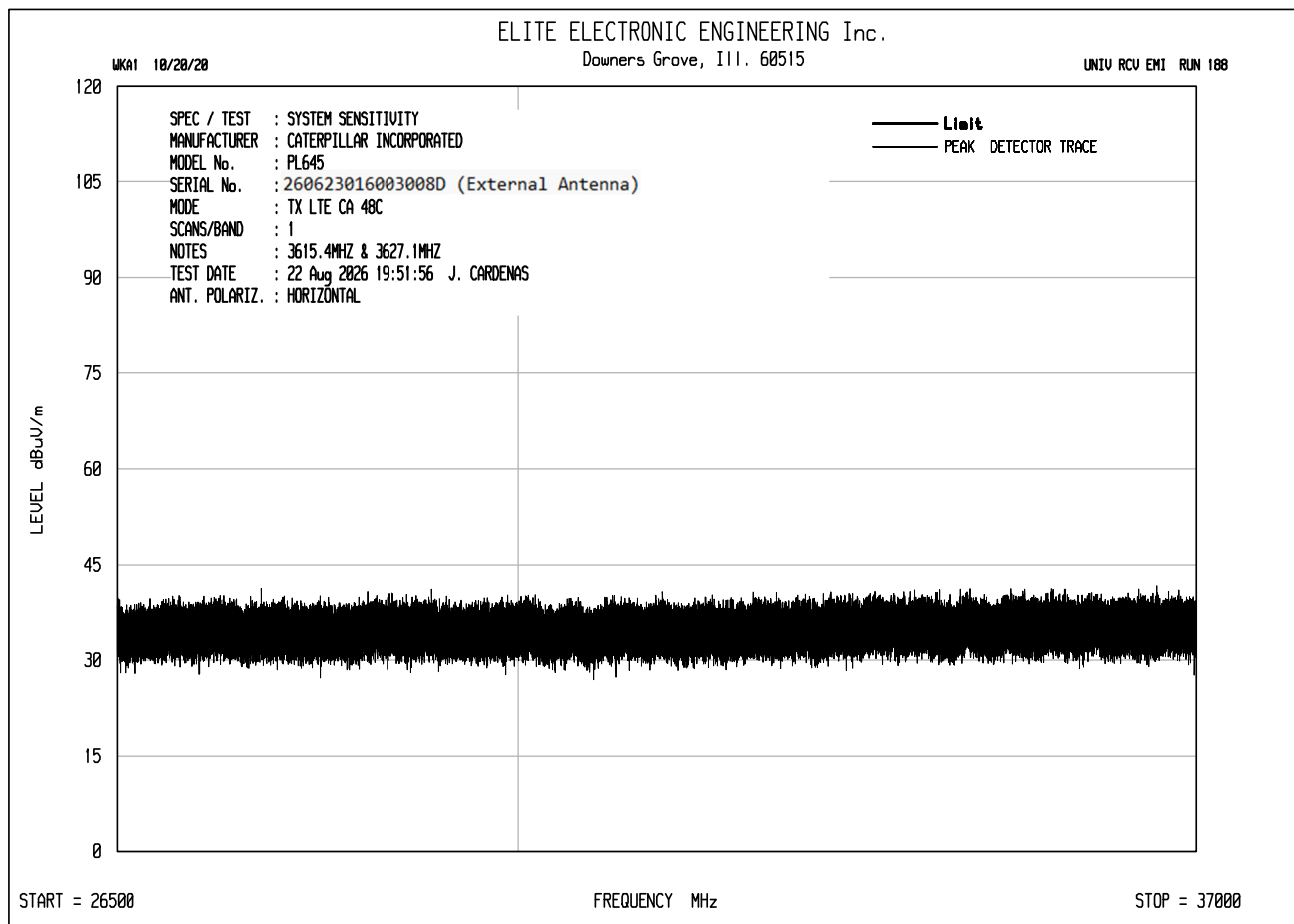
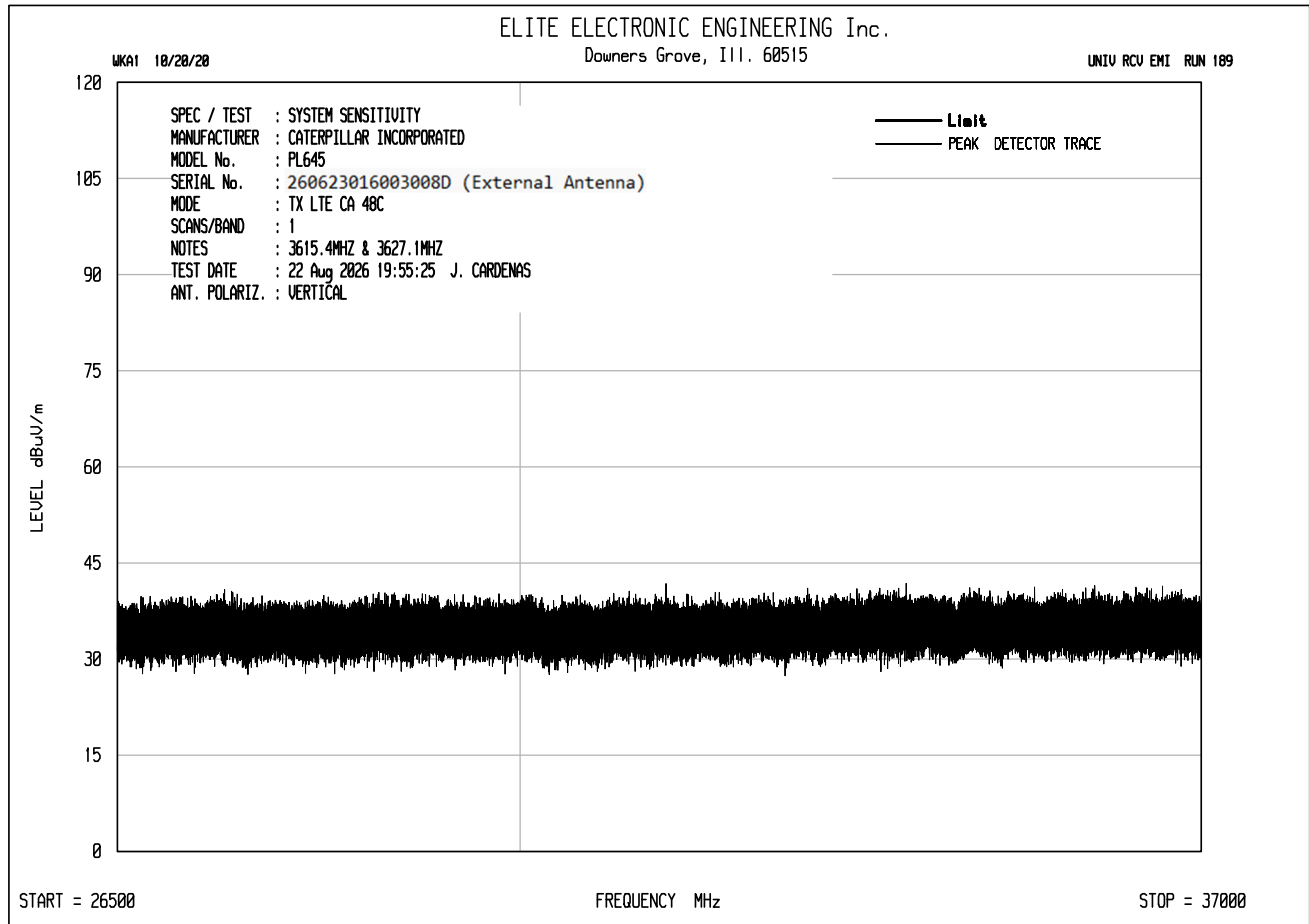






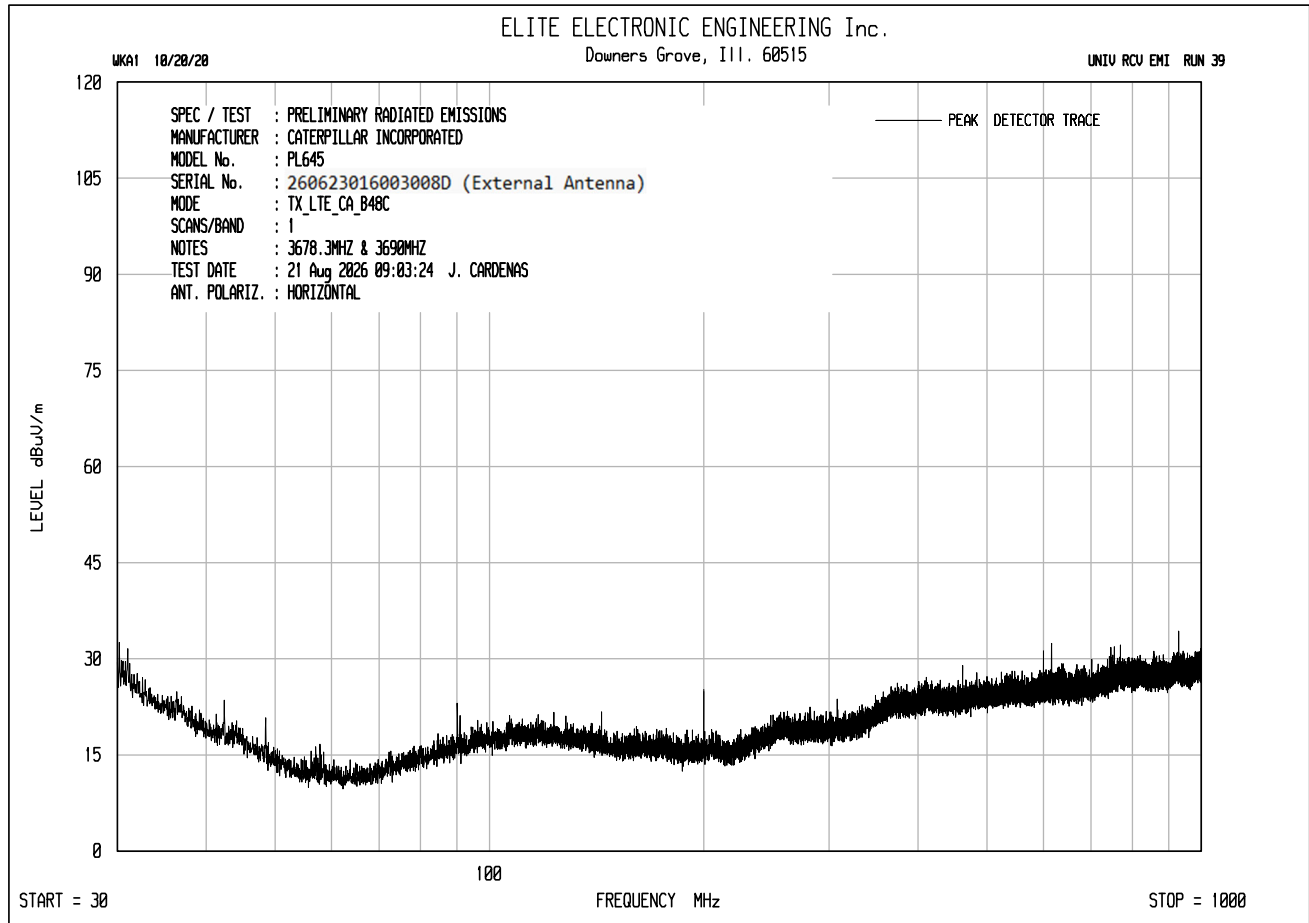


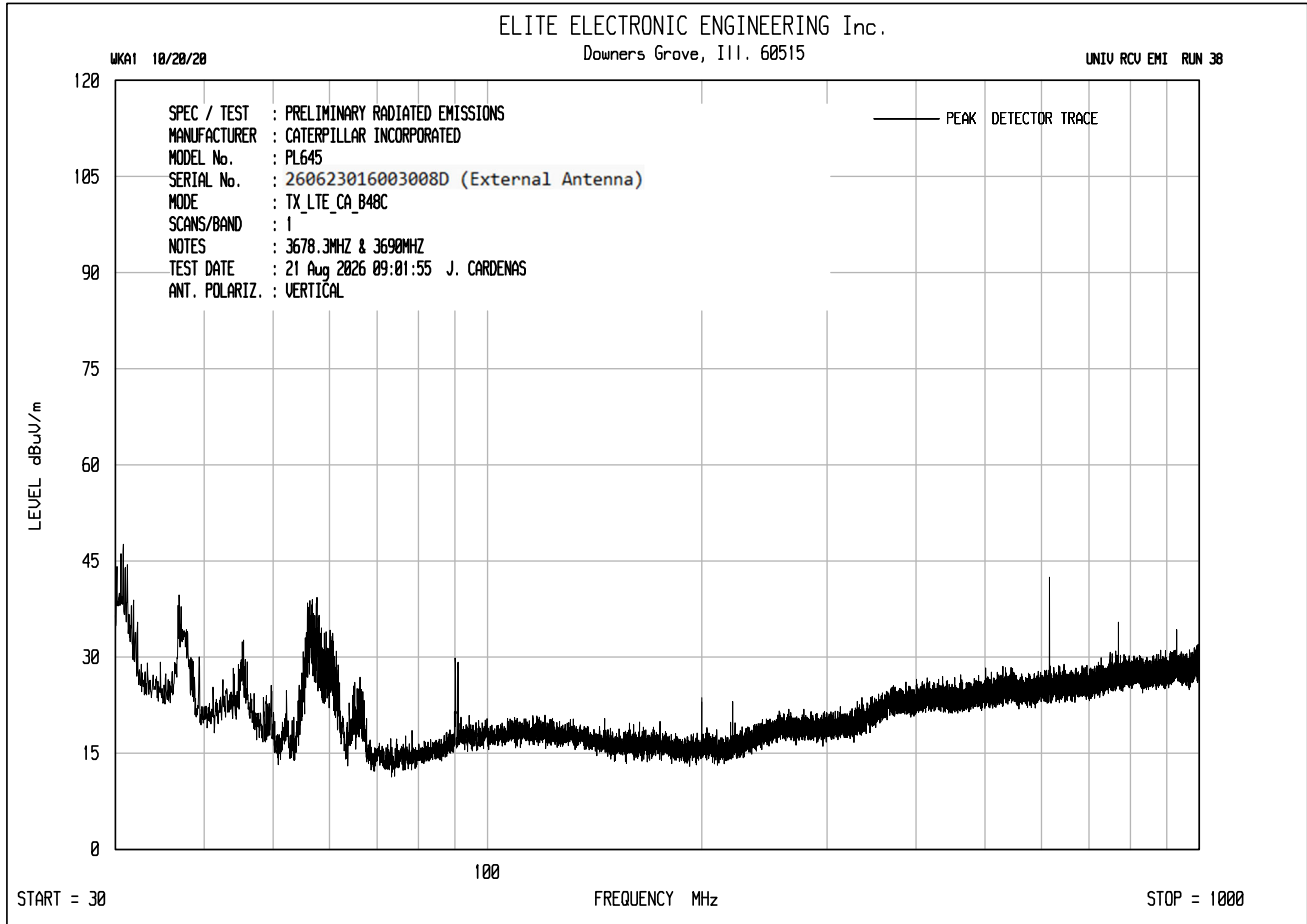


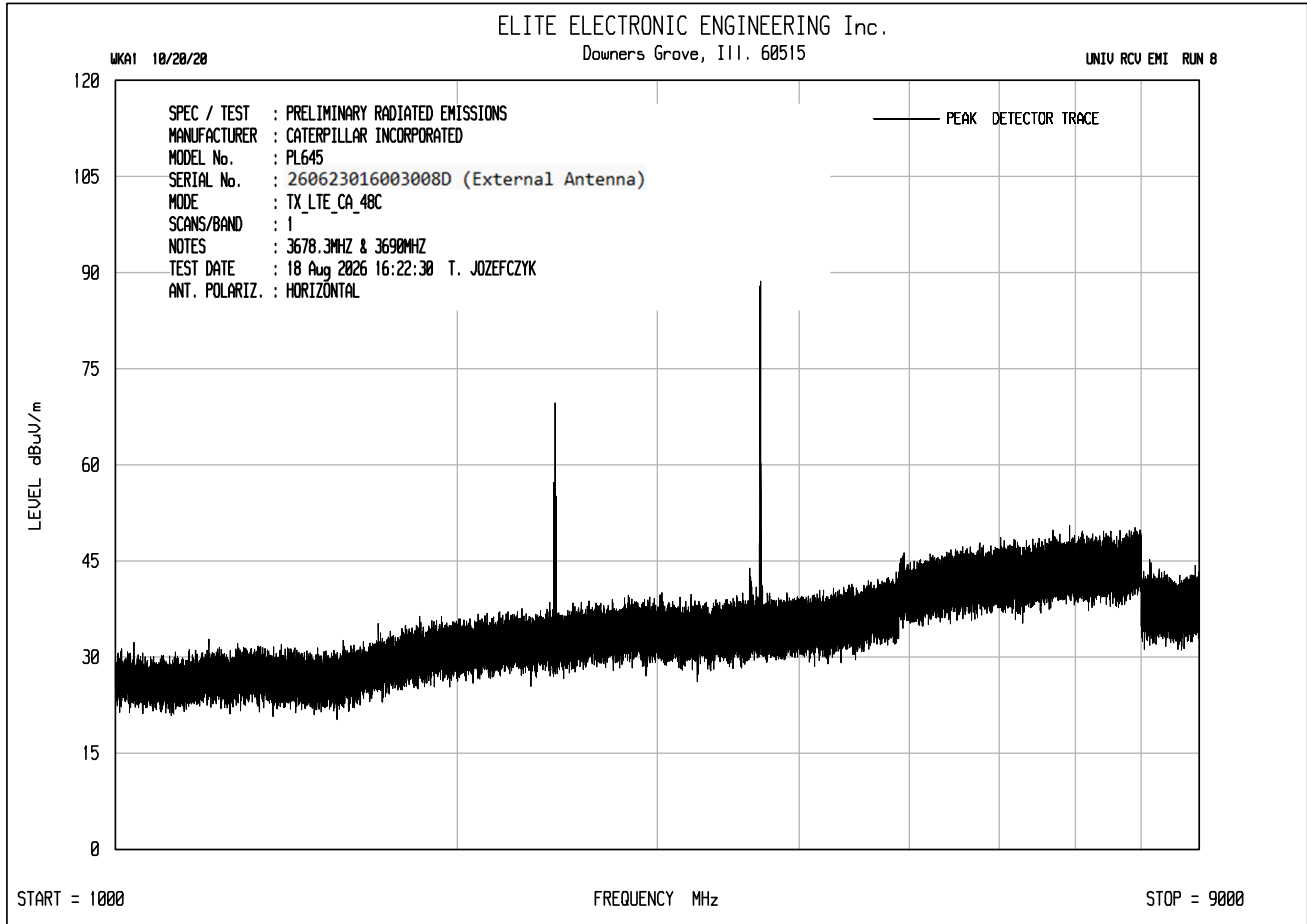


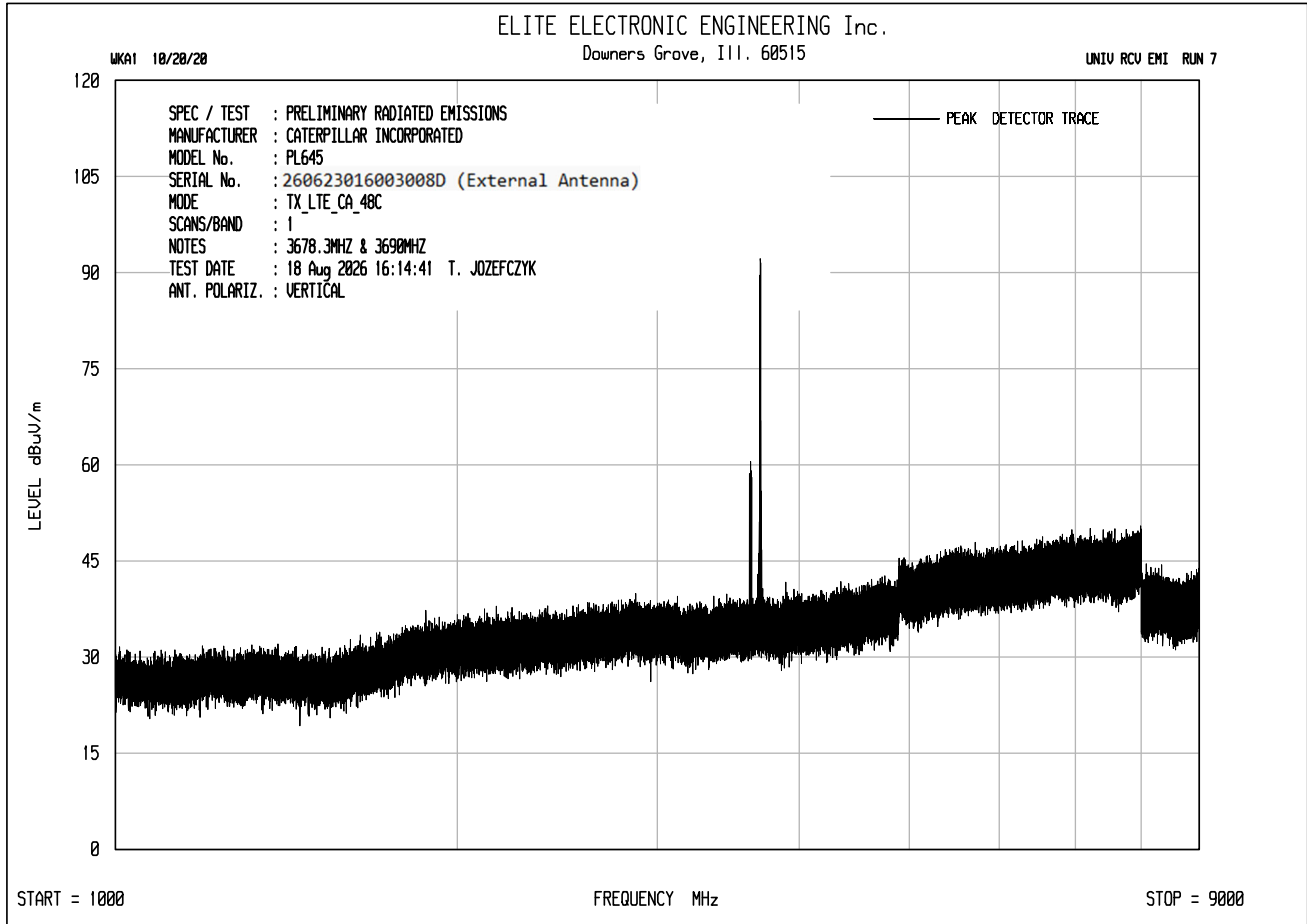
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
7230.80	H	48.8	Ambient	-48.0	7.5	6.1	-46.7	69.7	36.0
7230.80	V	49.2	Ambient	-48.5	7.5	6.1	-47.1	70.1	36.0

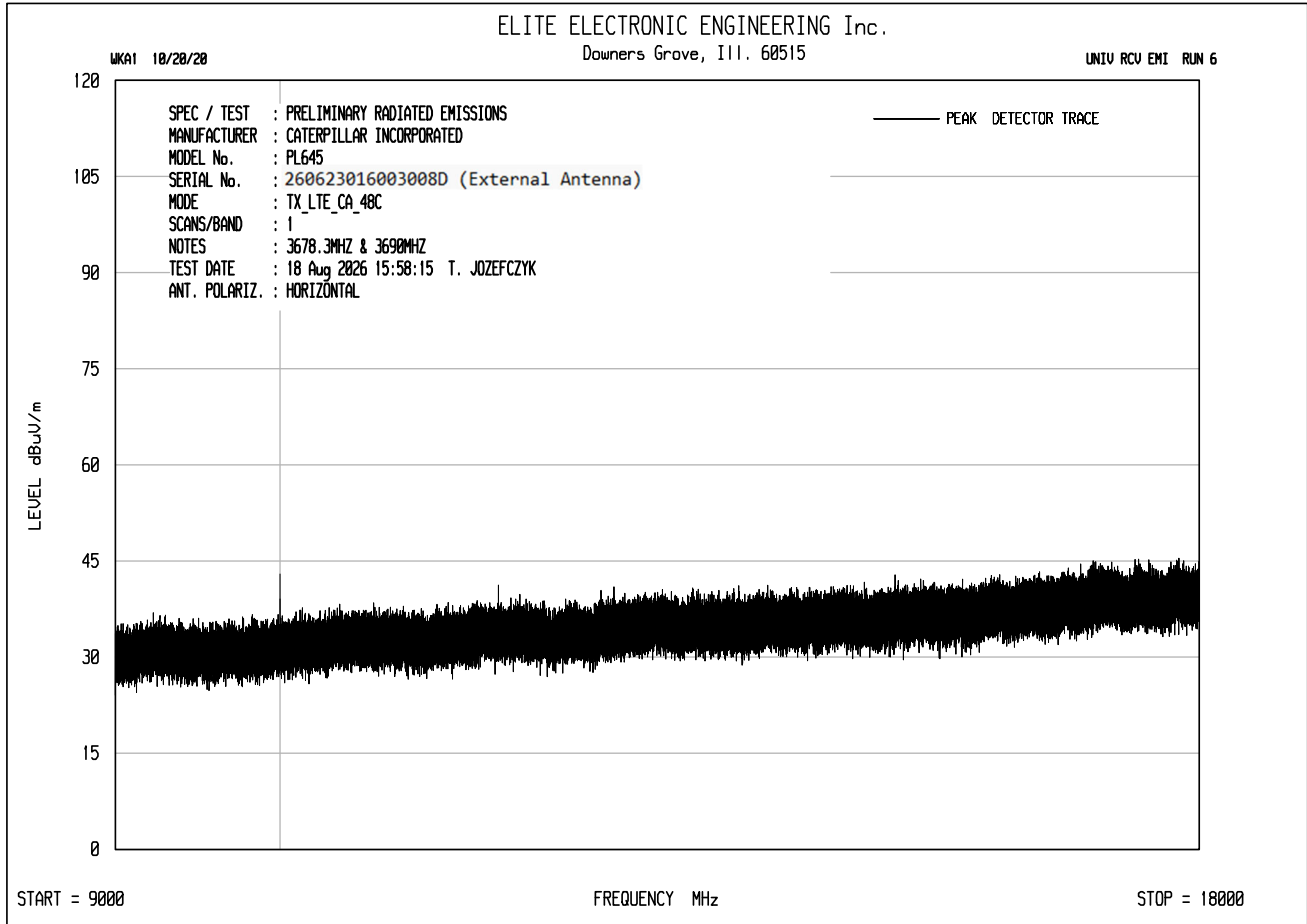
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.905-13
Serial No.	260623016003008D (External Antenna)
Mode	LTE CA
Frequency Tested	Band 48 – 3678.3MHz
Notes	None

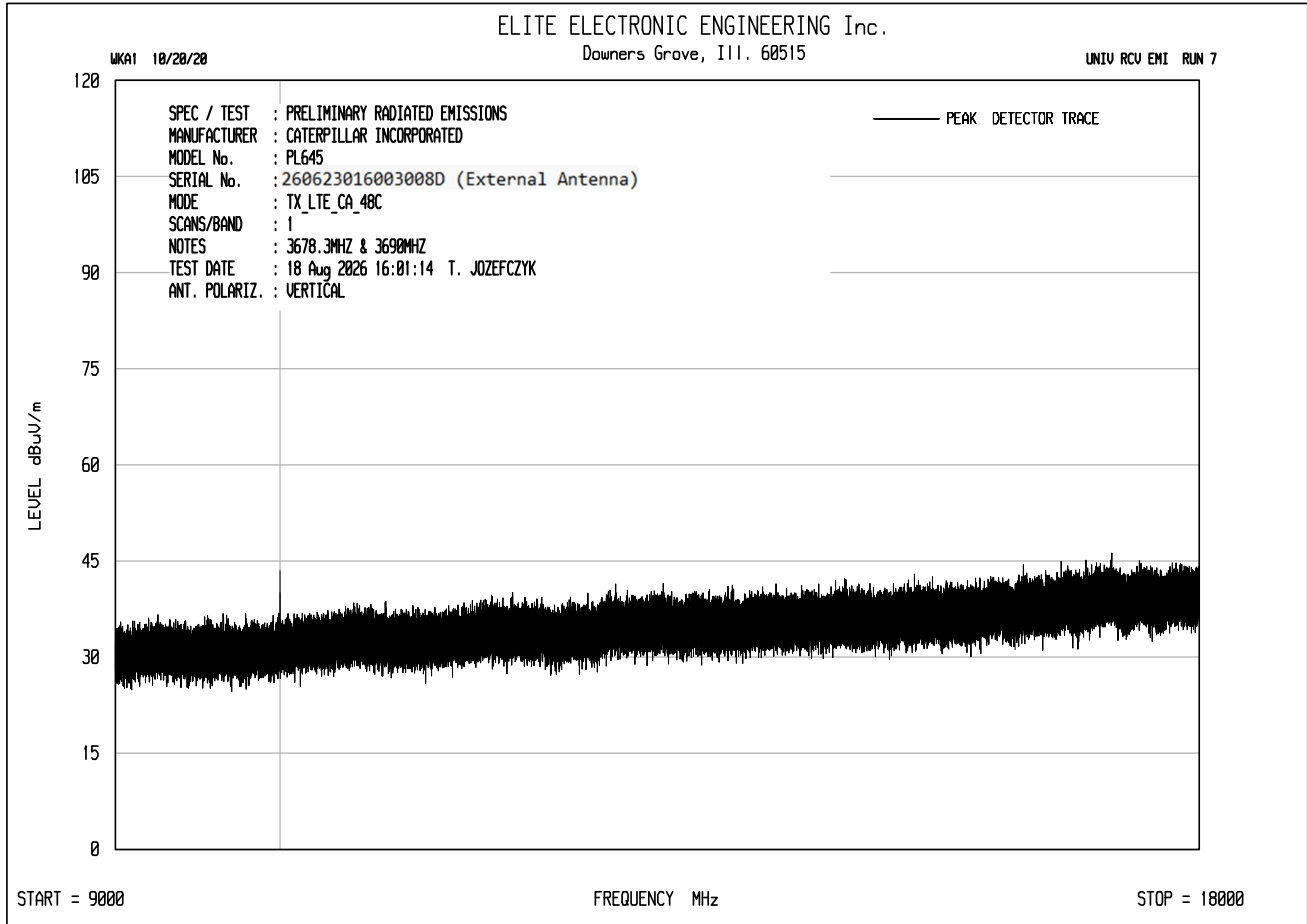


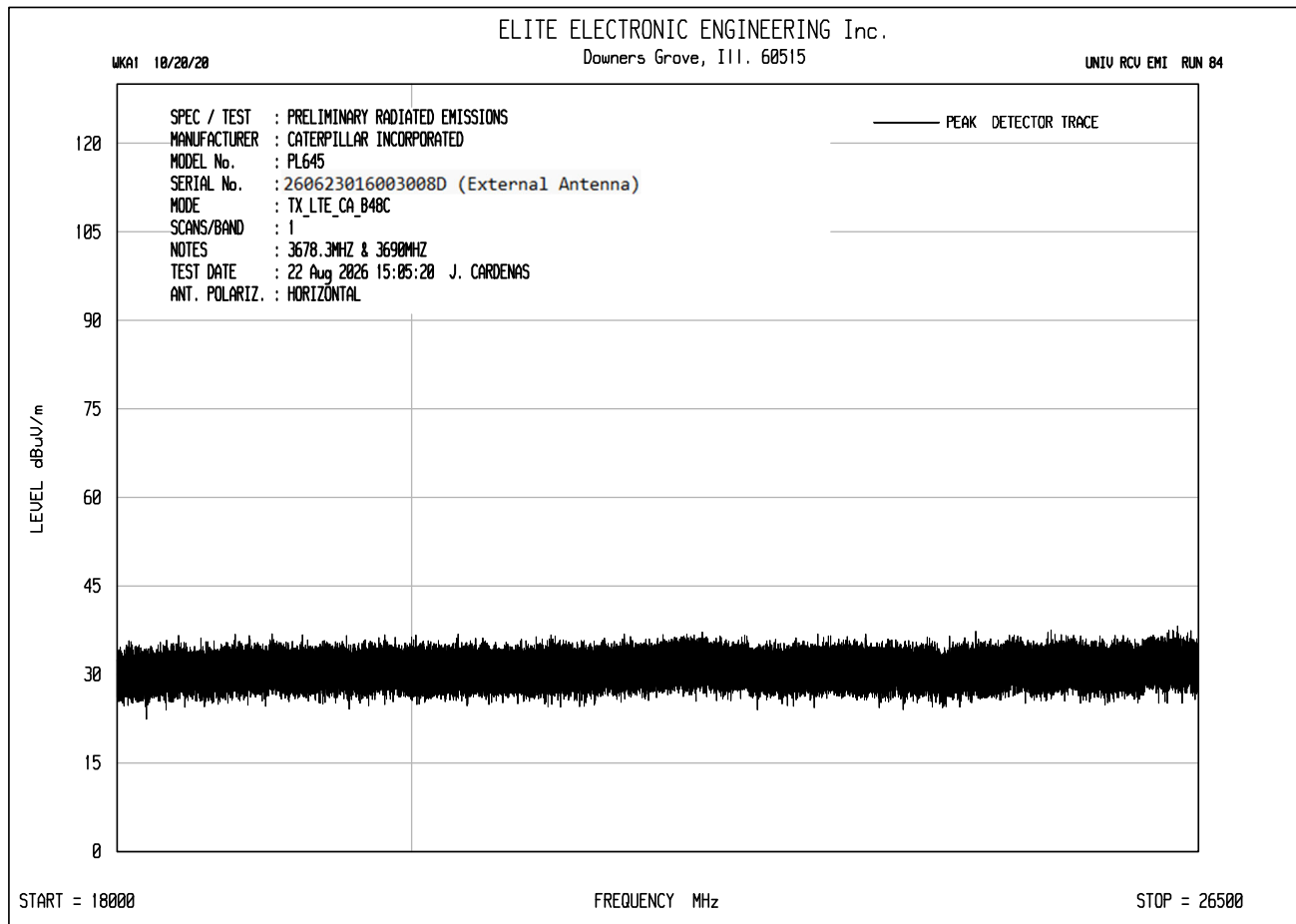


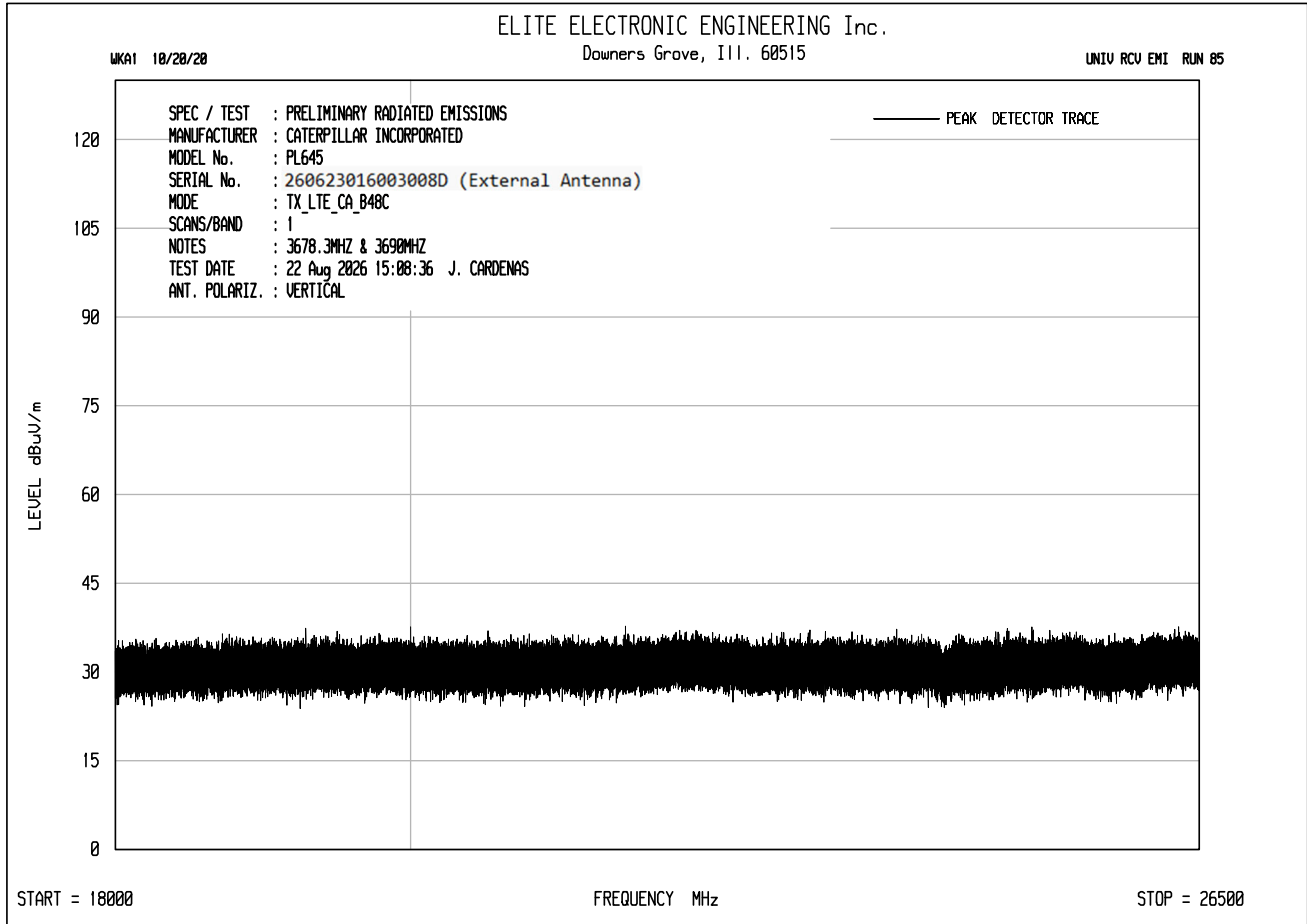


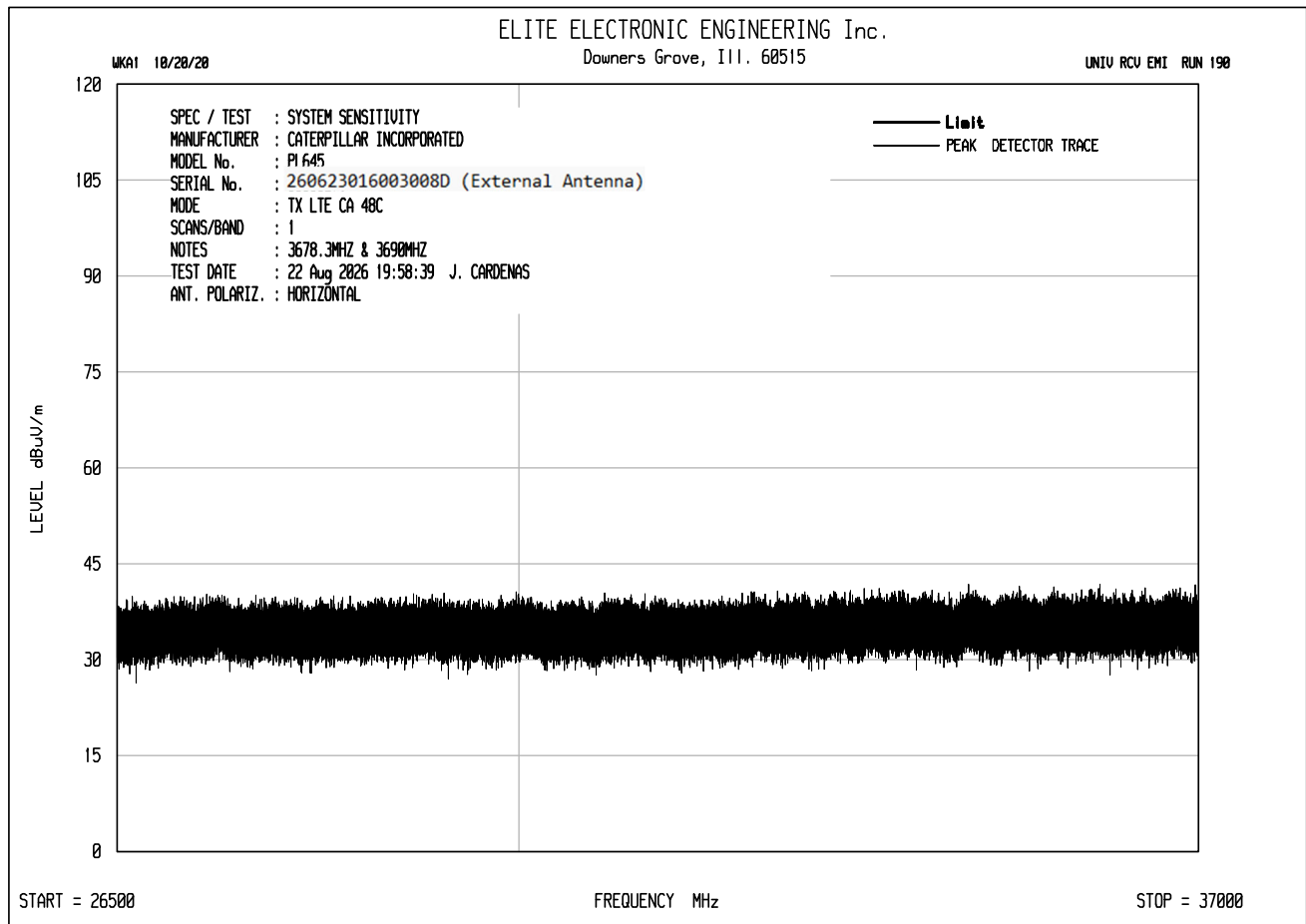


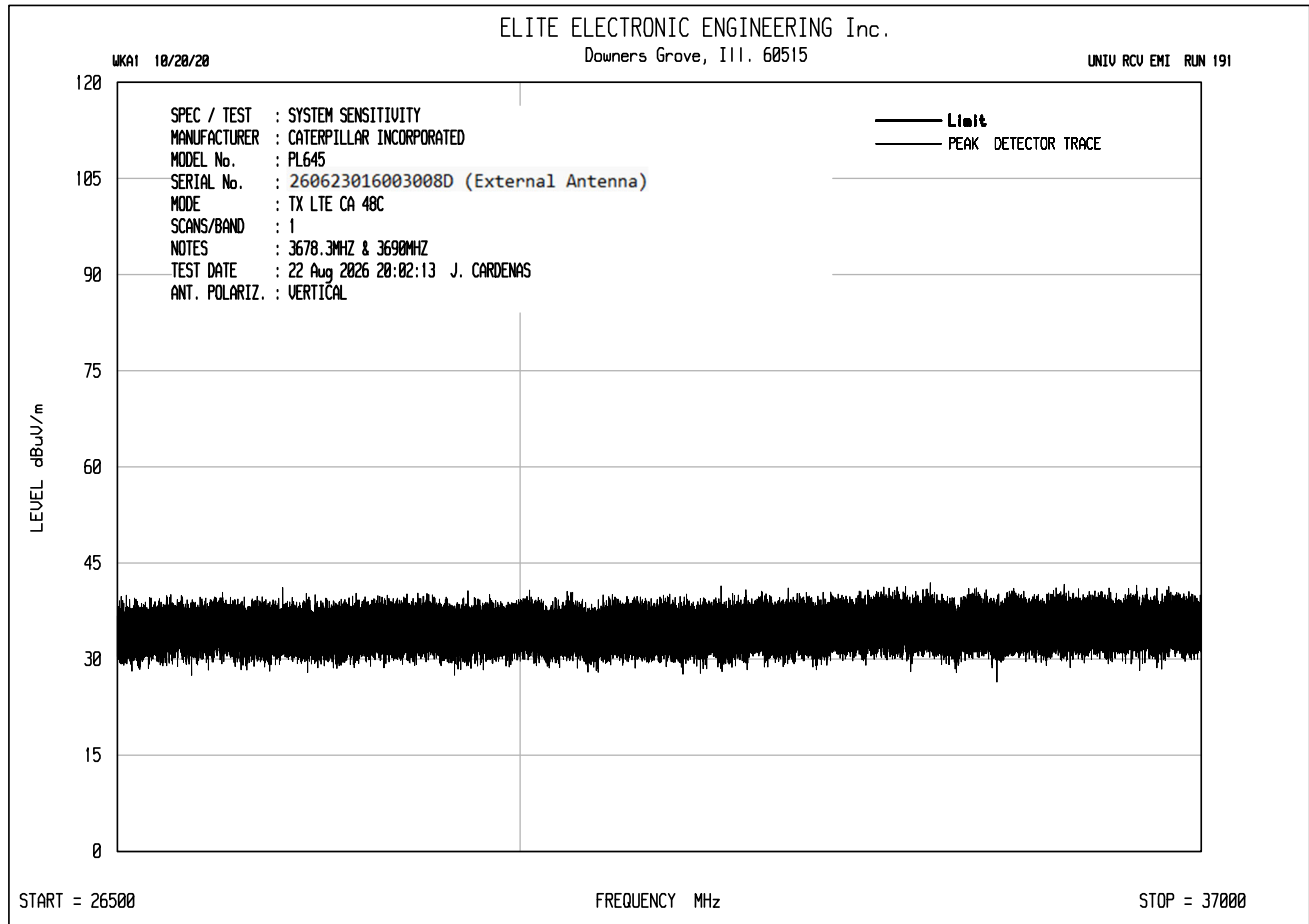






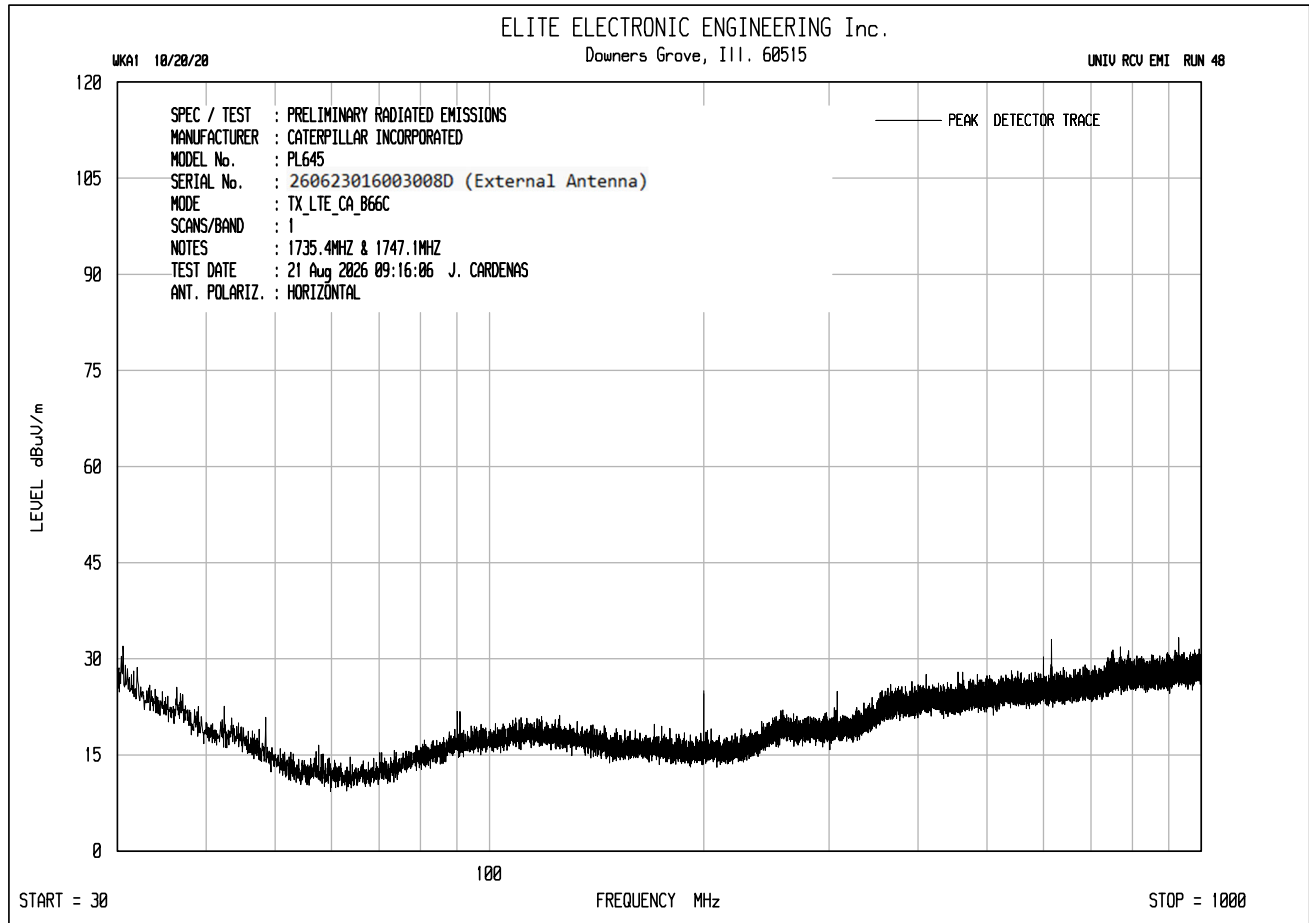


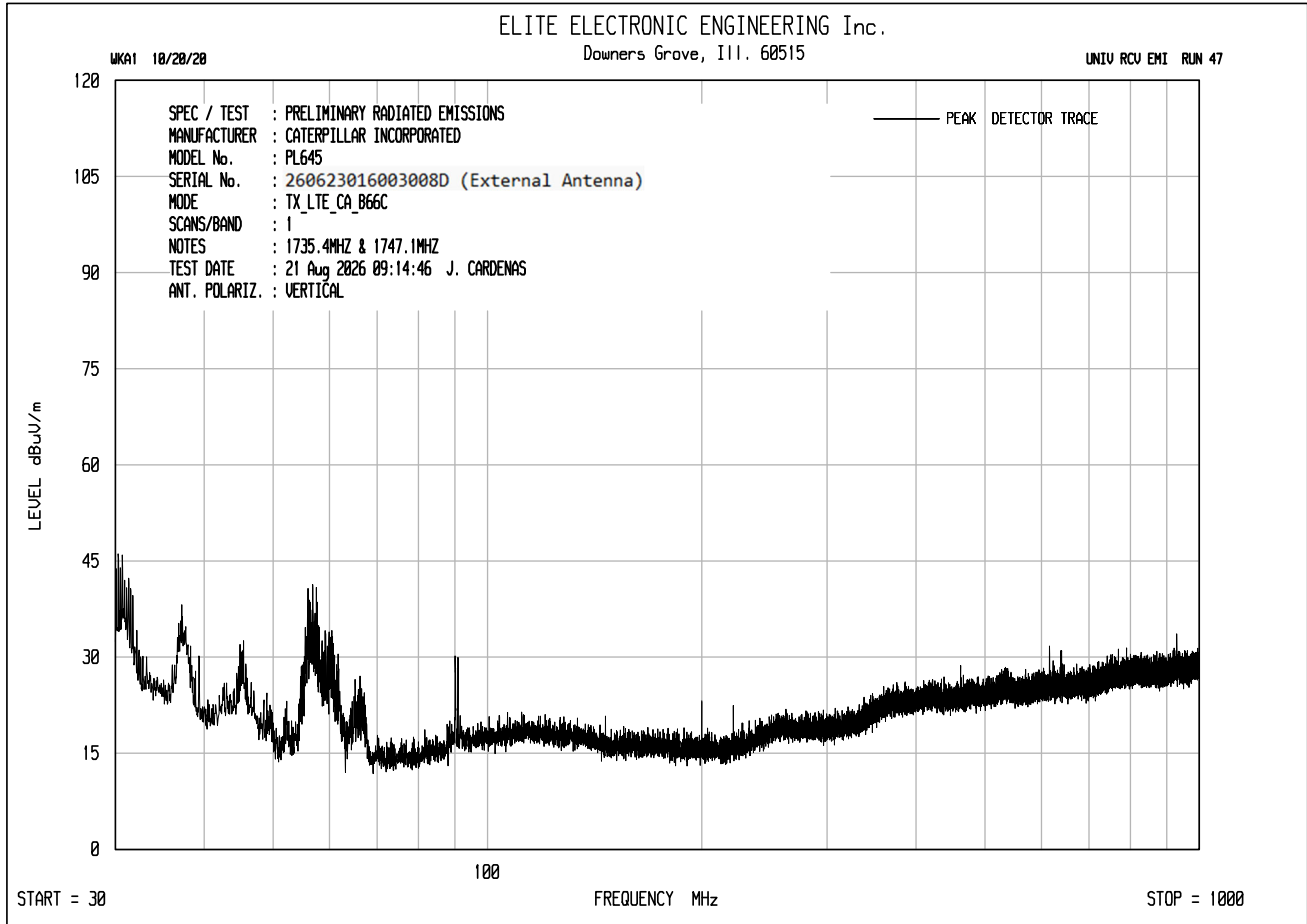


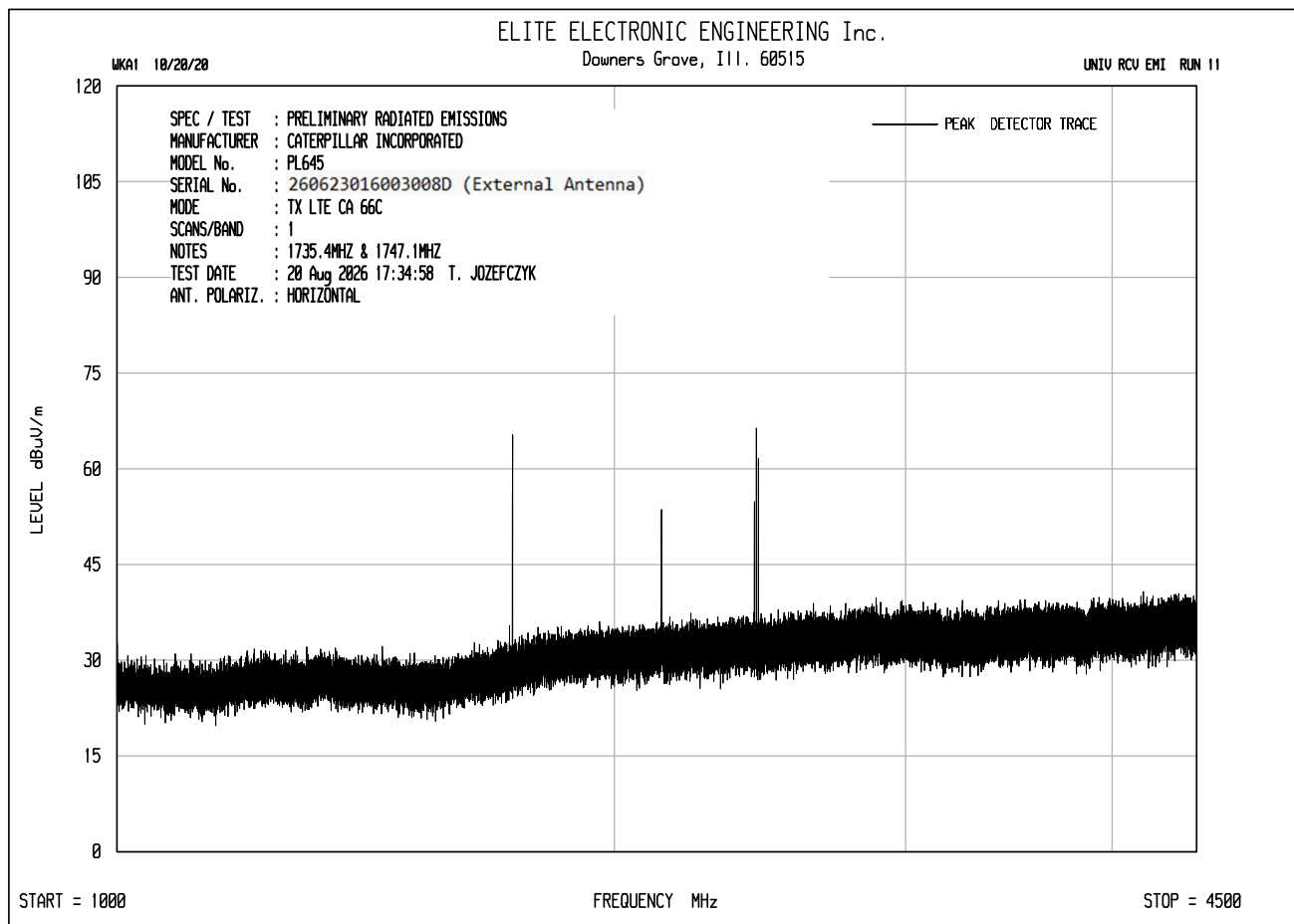


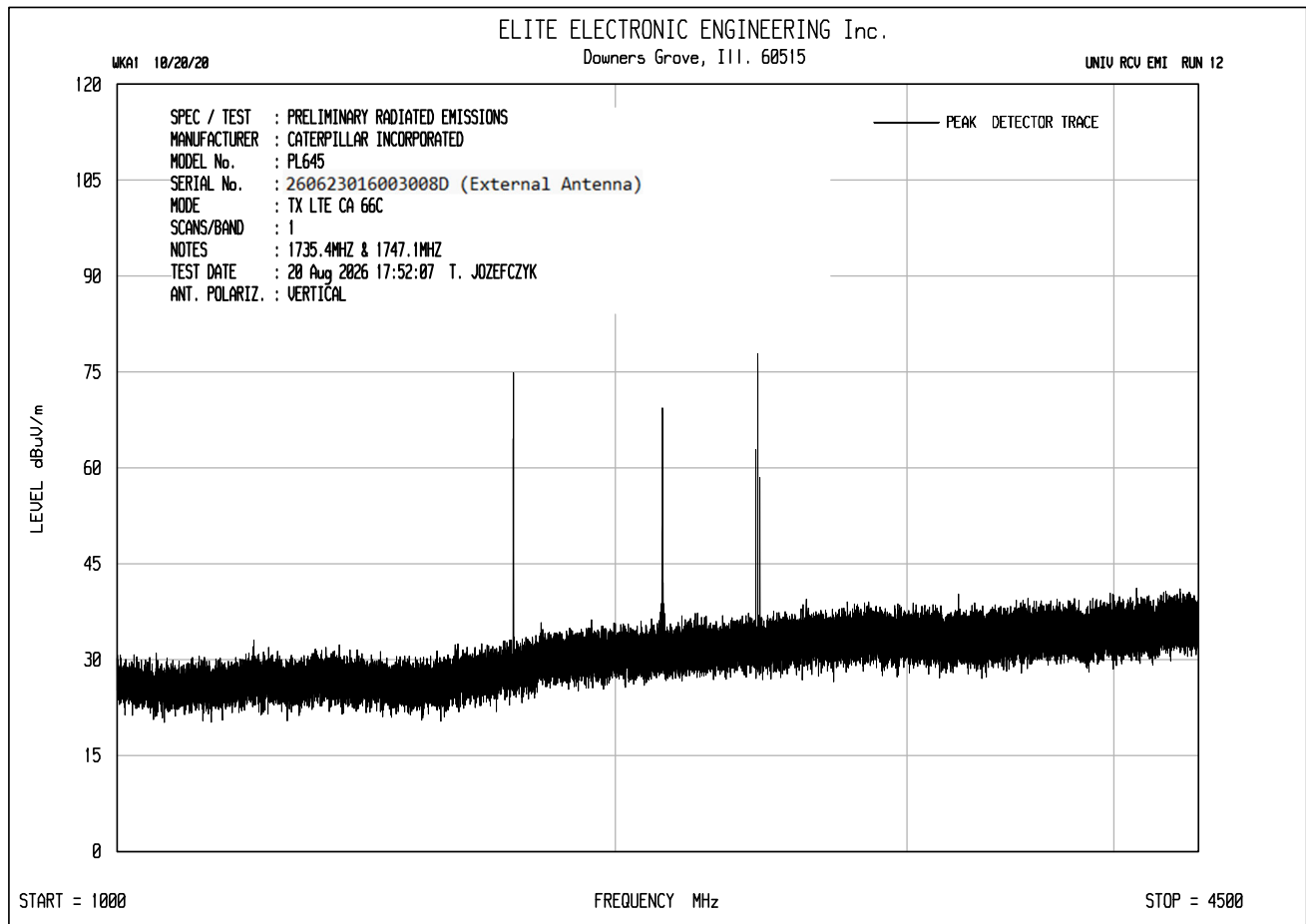
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
7395.00	H	48.8	Ambient	-48.2	7.6	6.2	-46.9	69.9	36.0
7395.00	V	48.8	Ambient	-48.9	7.6	6.2	-47.5	70.5	36.0

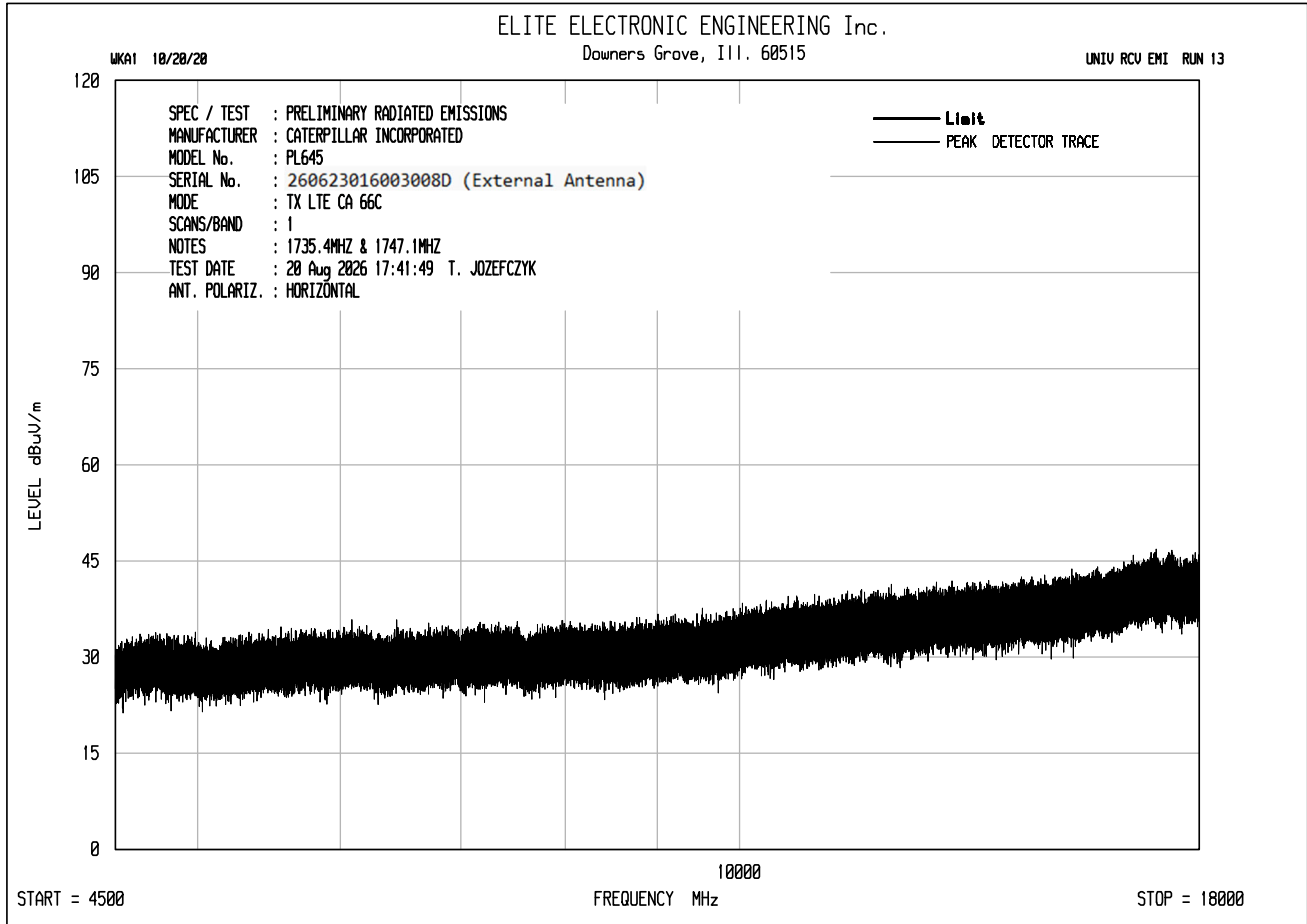
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.905-13
Serial No.	260623016003008D (External Antenna)
Mode	LTE CA
Frequency Tested	Band 66 – 1735.4MHz
Notes	None

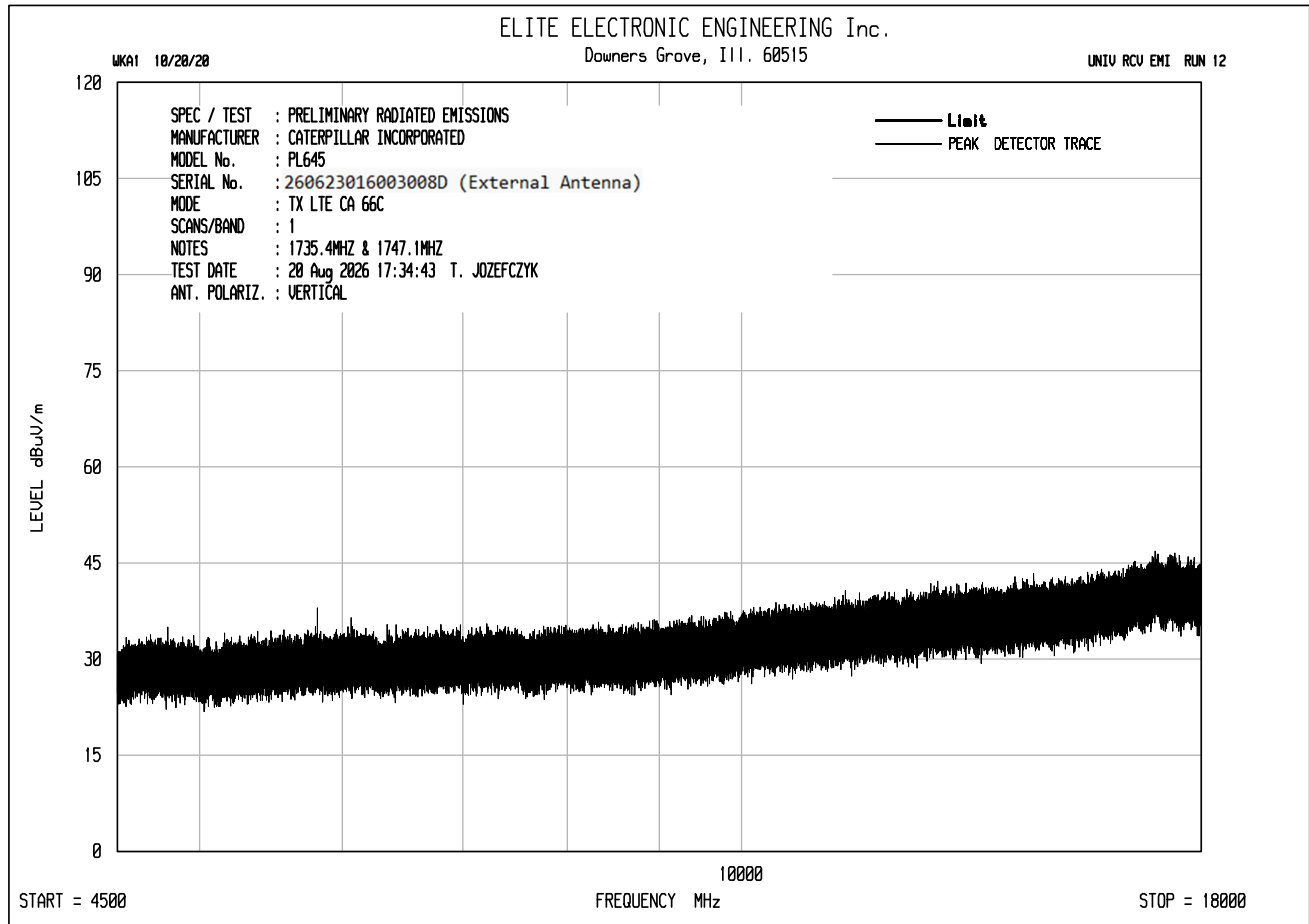






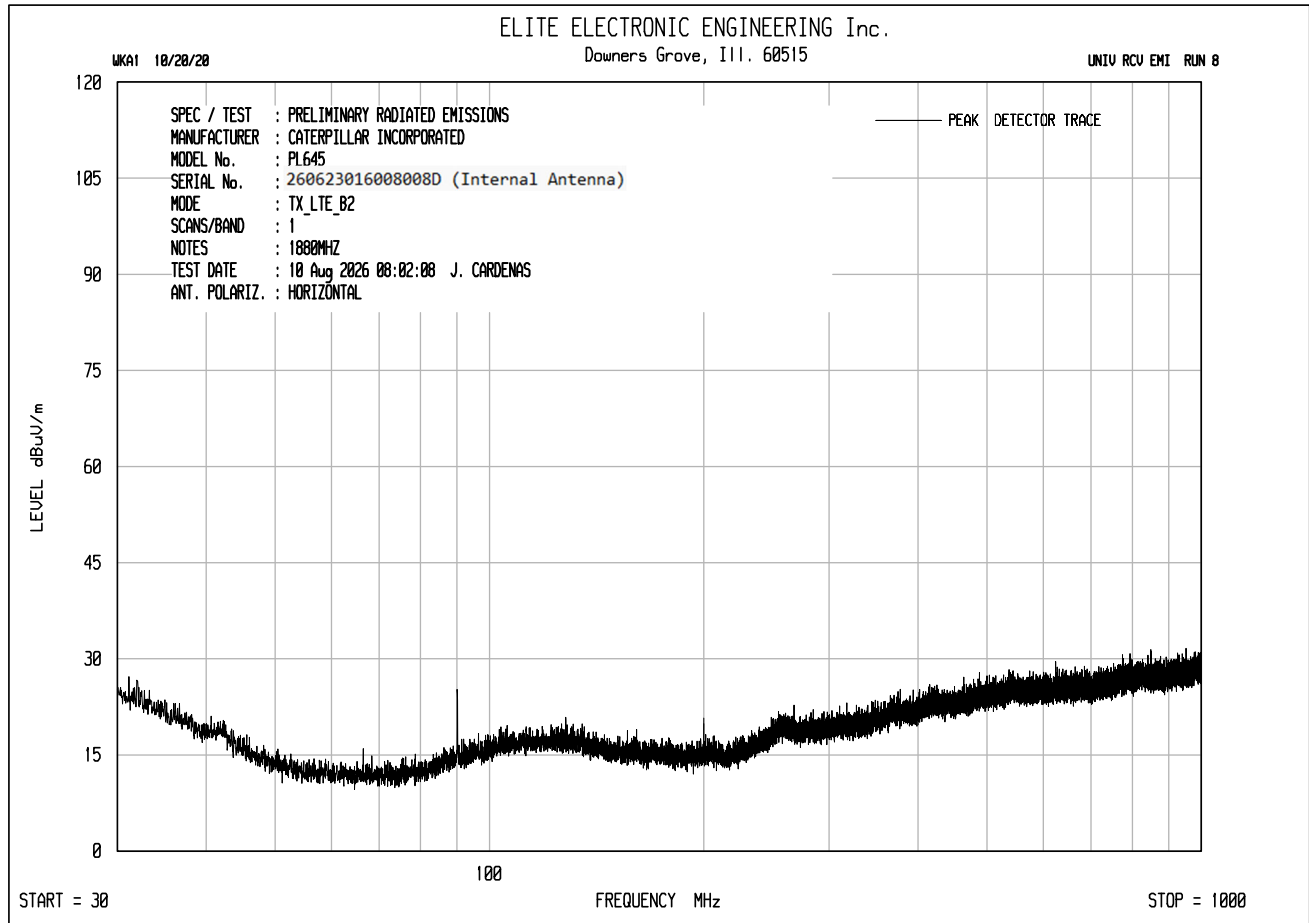


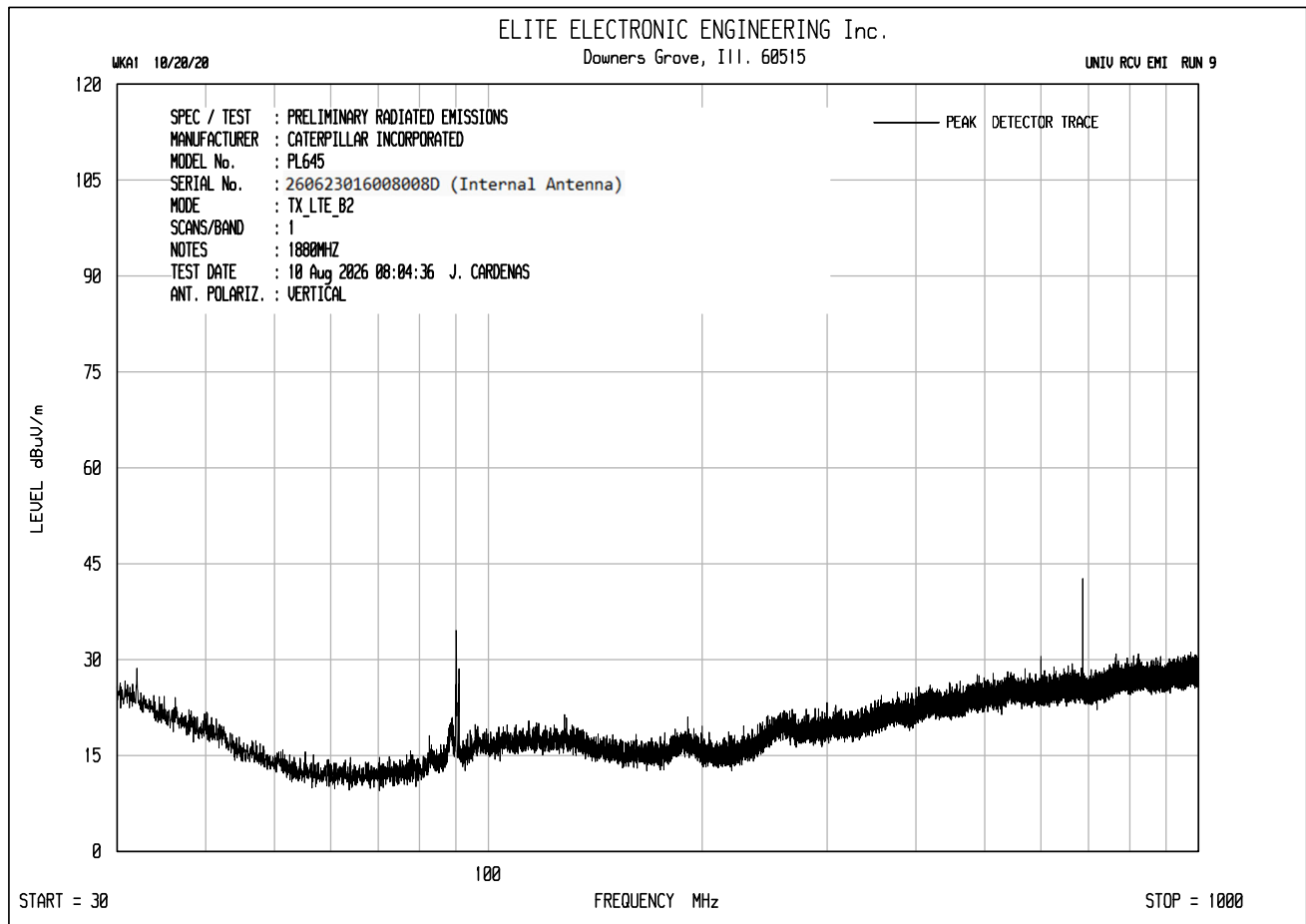


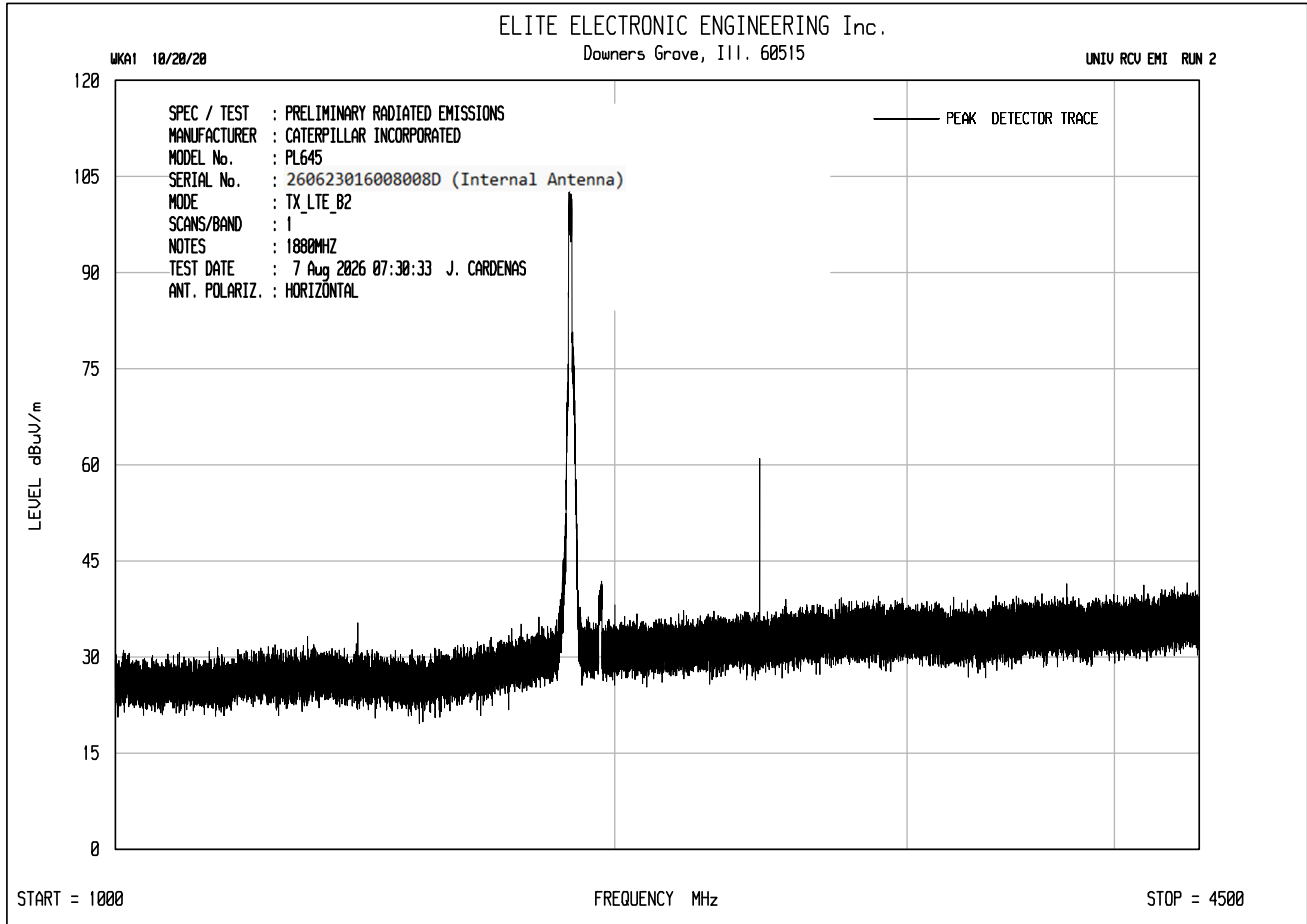


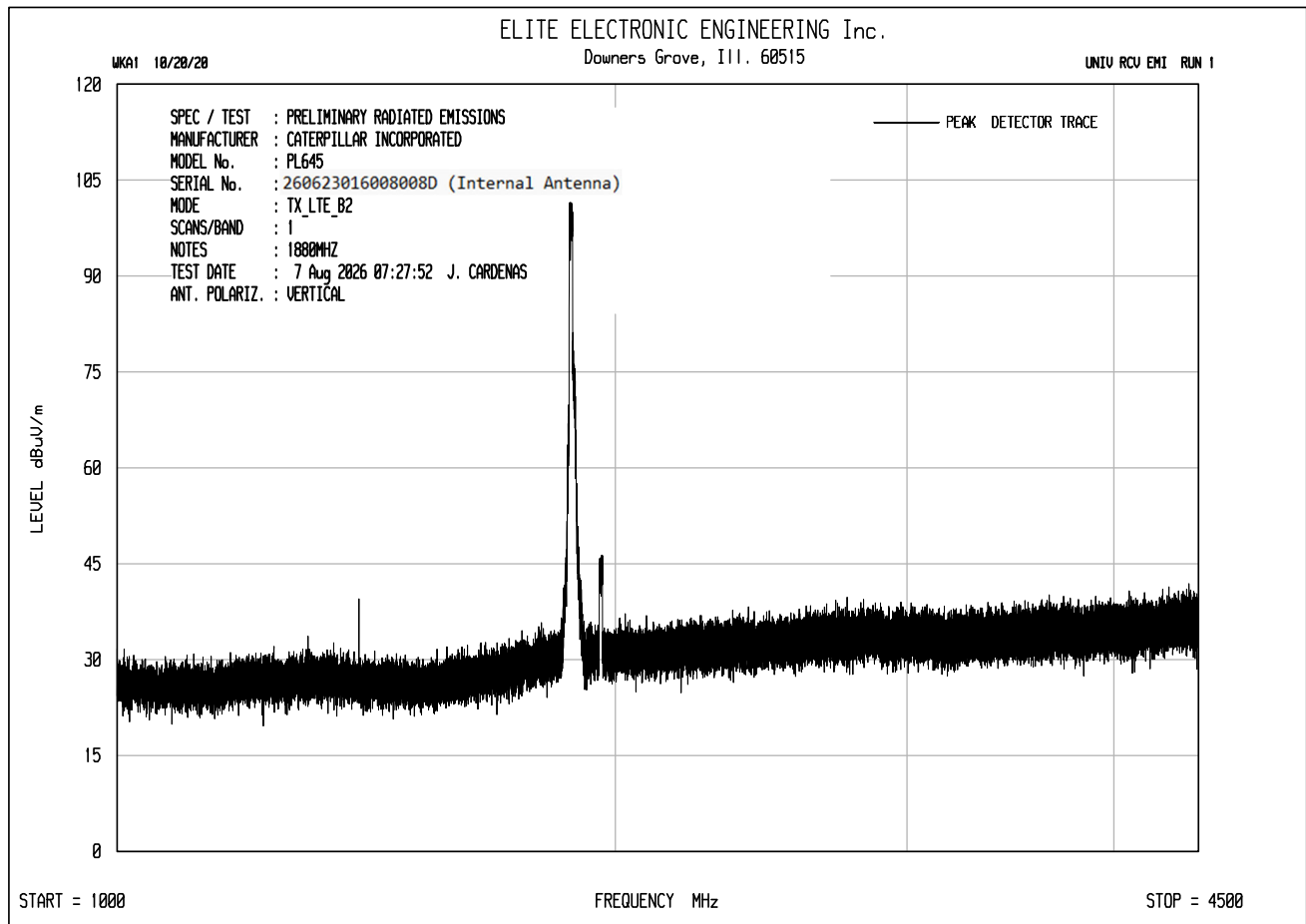
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
3470.80	H	24.7	Ambient	-40.1	4.8	4.2	-39.4	62.4	36.0
3470.80	V	24.5	Ambient	-38.6	4.8	4.2	-37.9	60.9	36.0

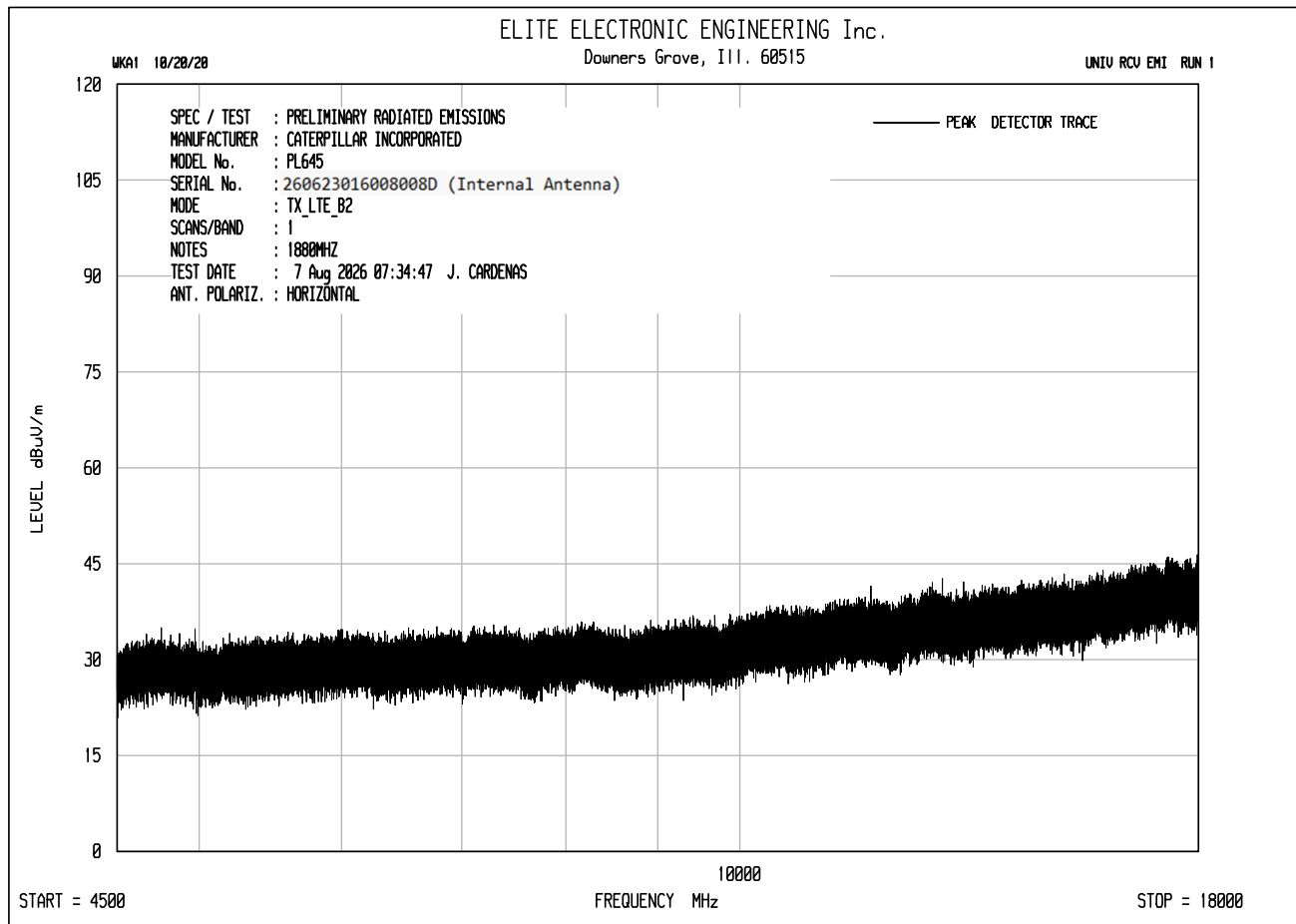
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 2 – 1880MHz
Notes	None

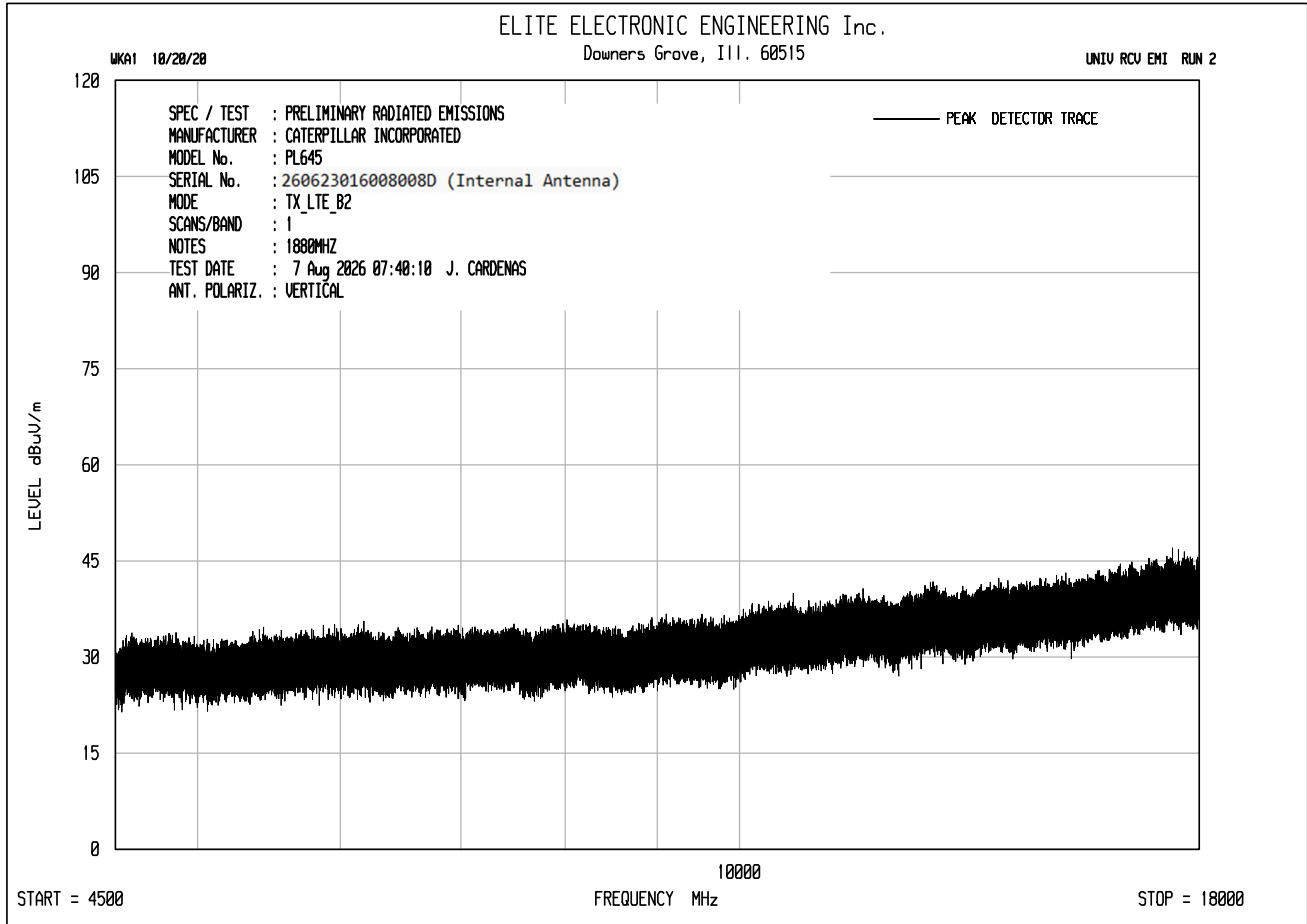


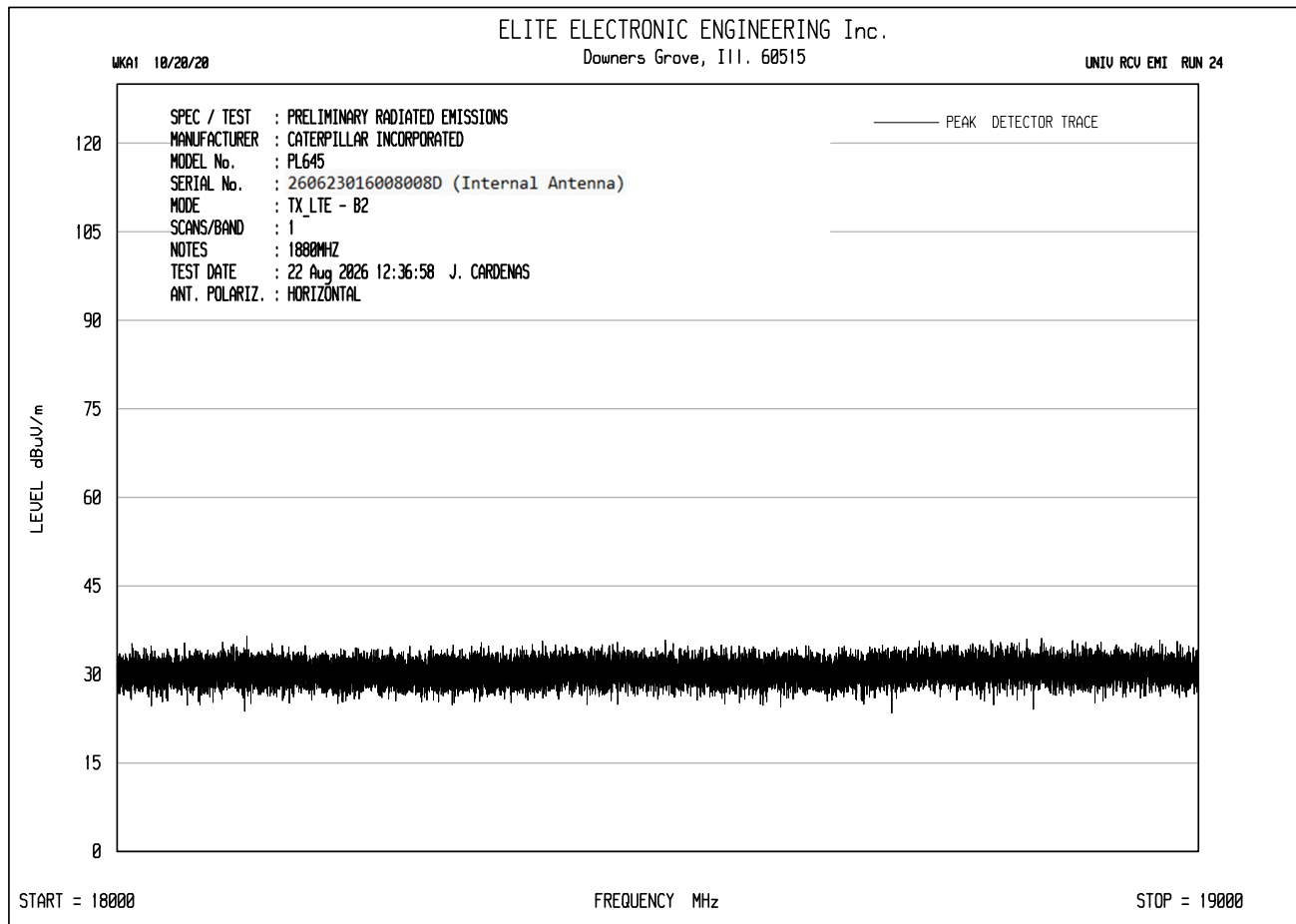


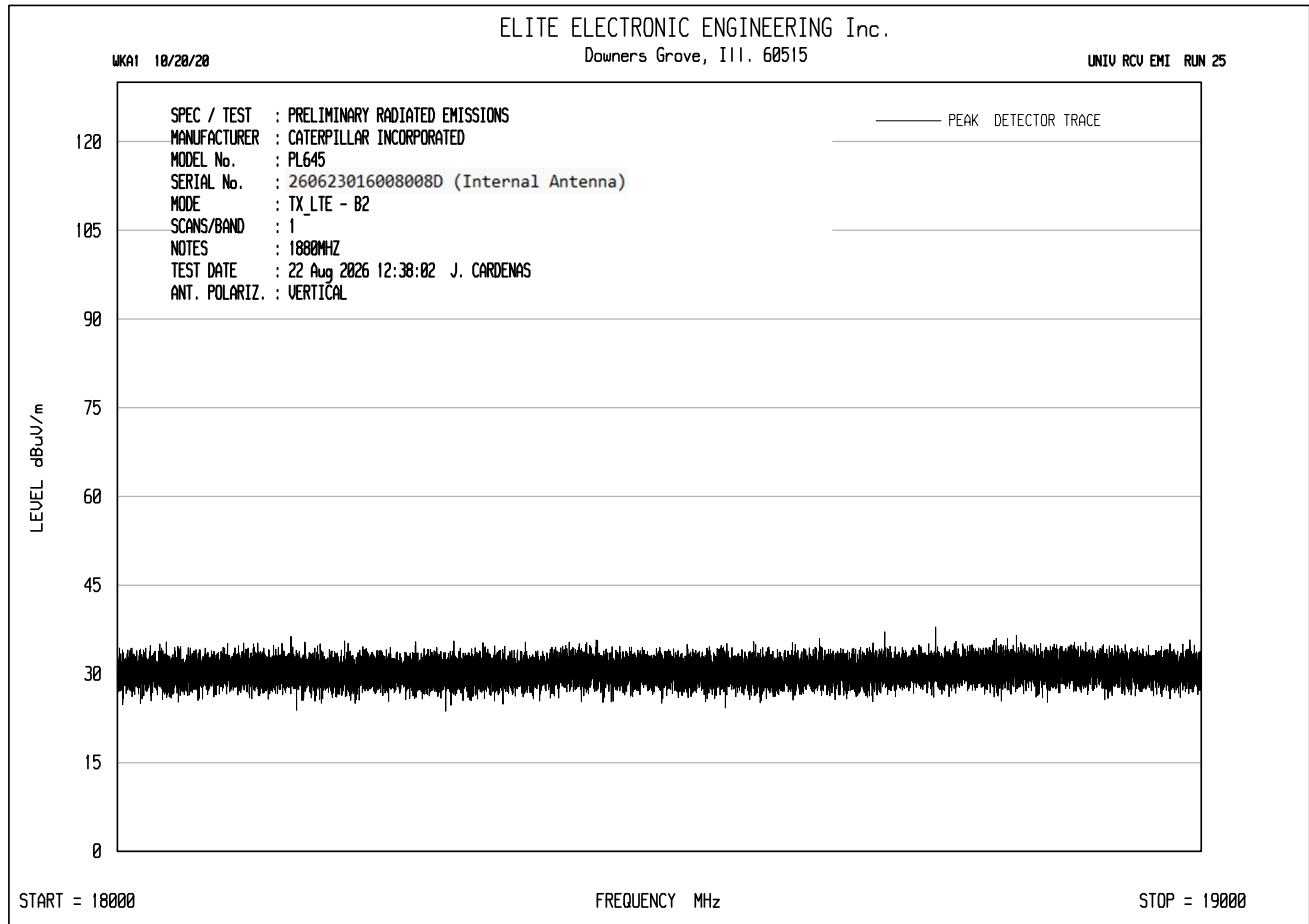






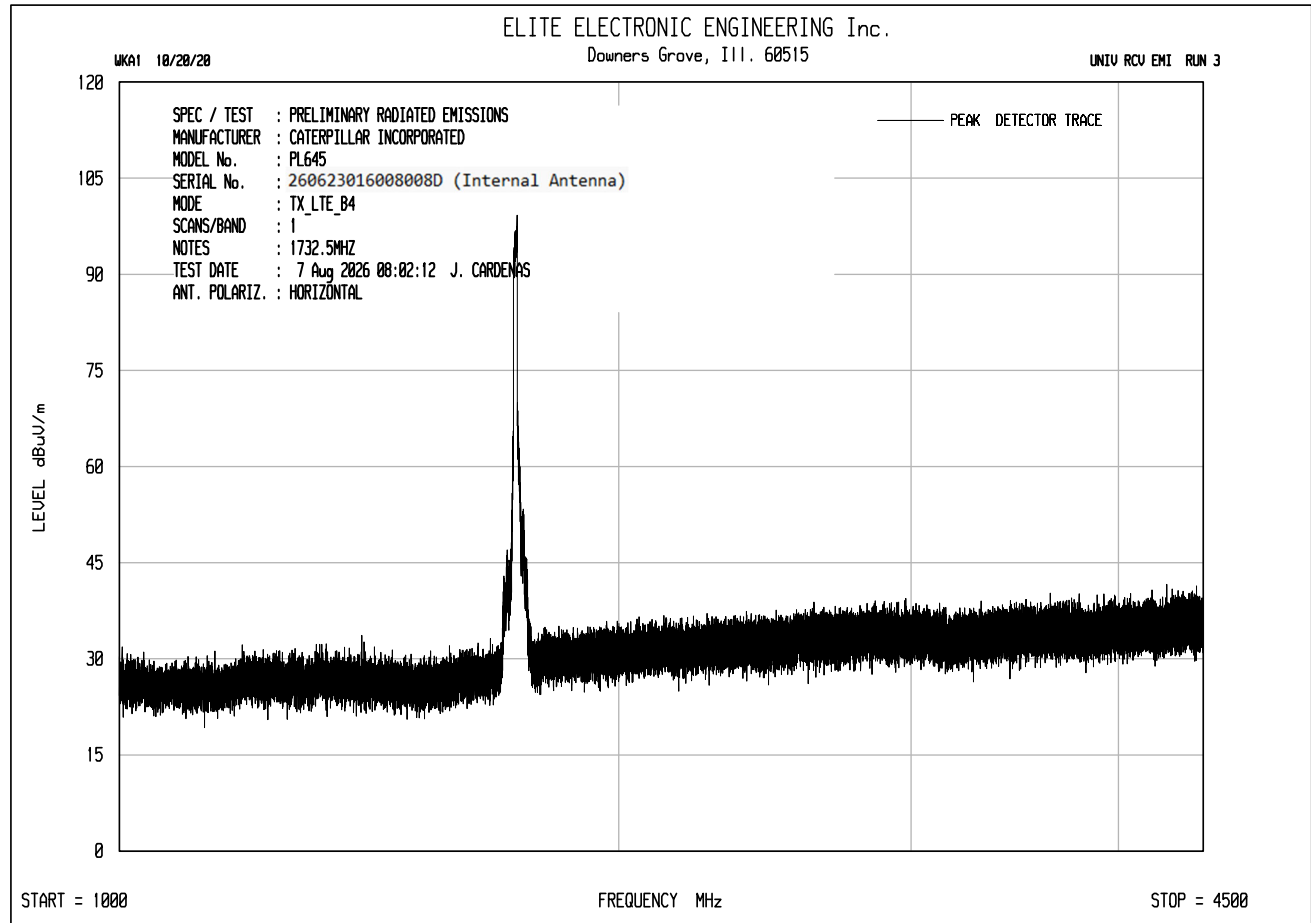


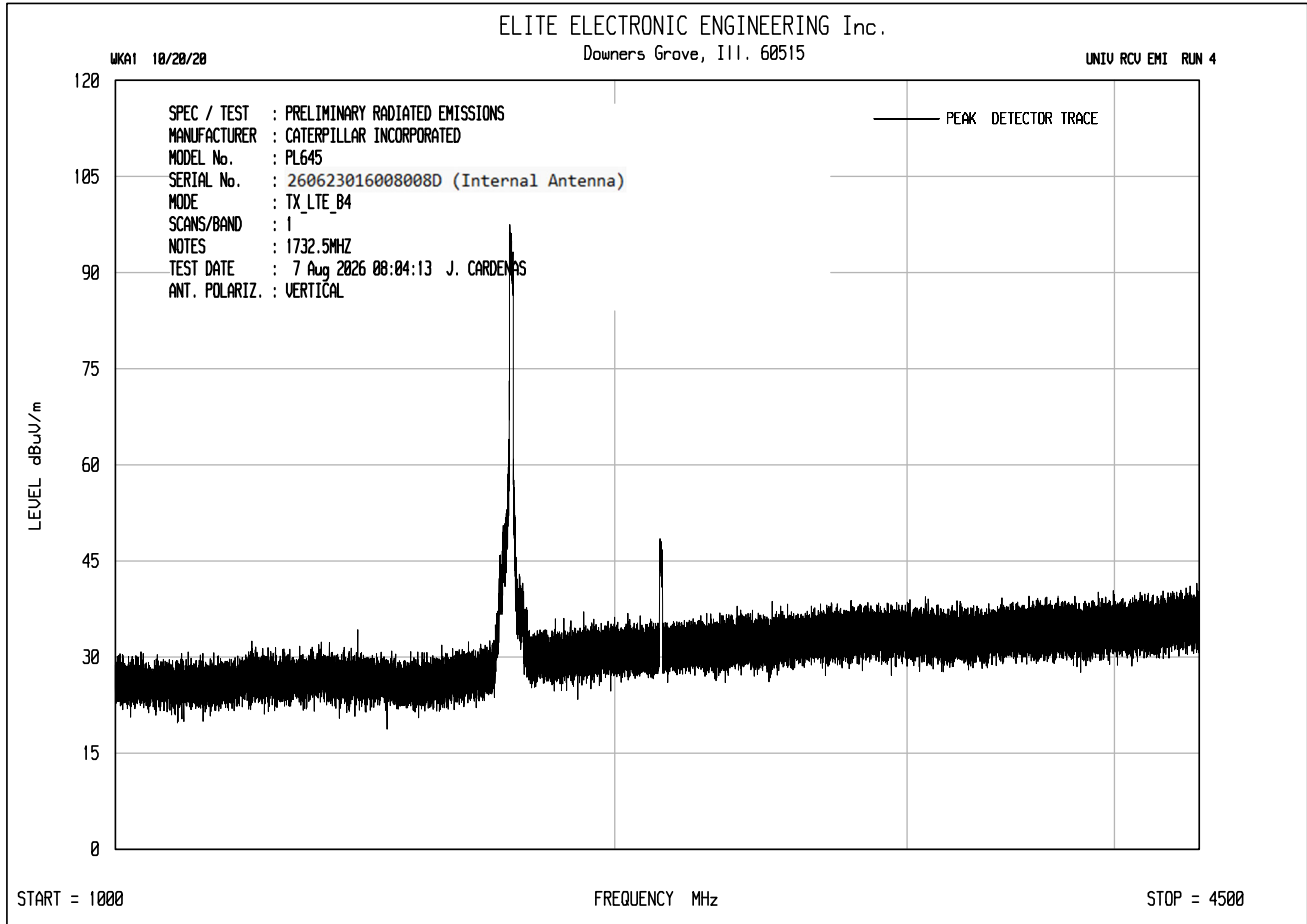


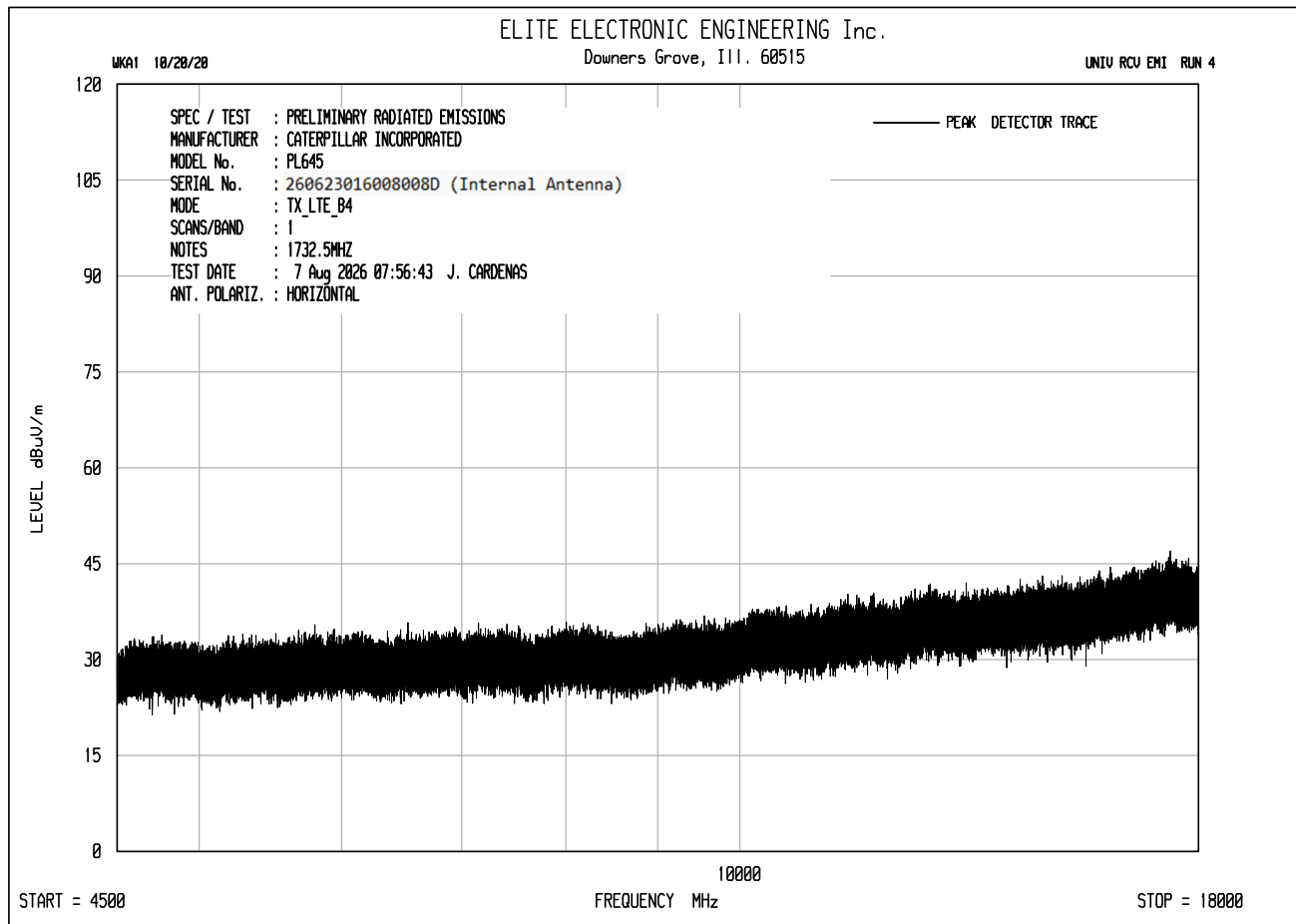


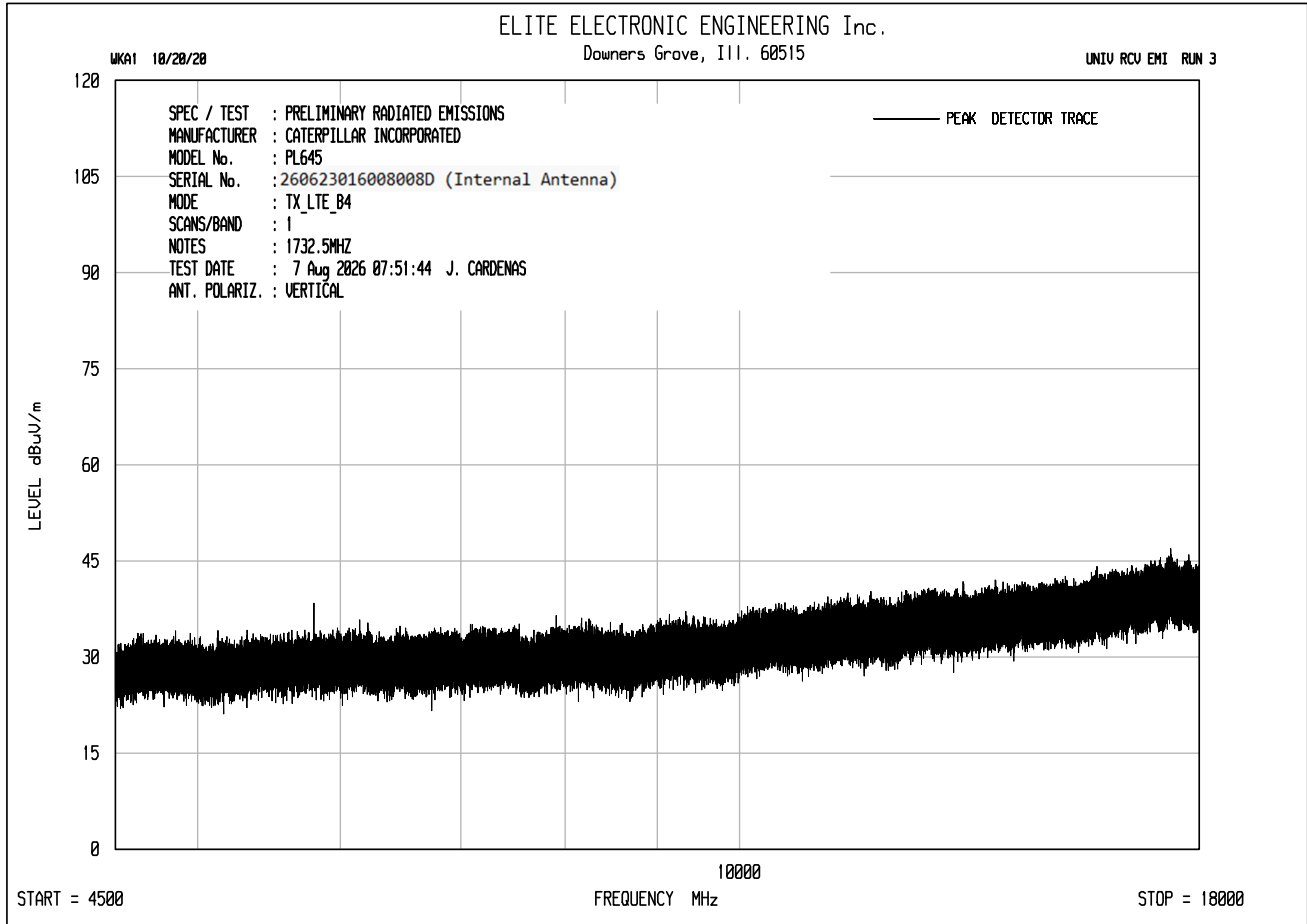
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
3760.00	H	26.1	Ambient	-36.9	5.1	4.3	-36.2	59.1	36.0
3760.00	V	27.2	Ambient	-34.7	5.1	4.3	-33.9	56.9	36.0
5640.00	H	49.1	Ambient	-50.0	5.7	5.3	-49.6	72.5	36.0
5640.00	V	48.4	Ambient	-50.8	5.7	5.3	-50.4	73.4	36.0

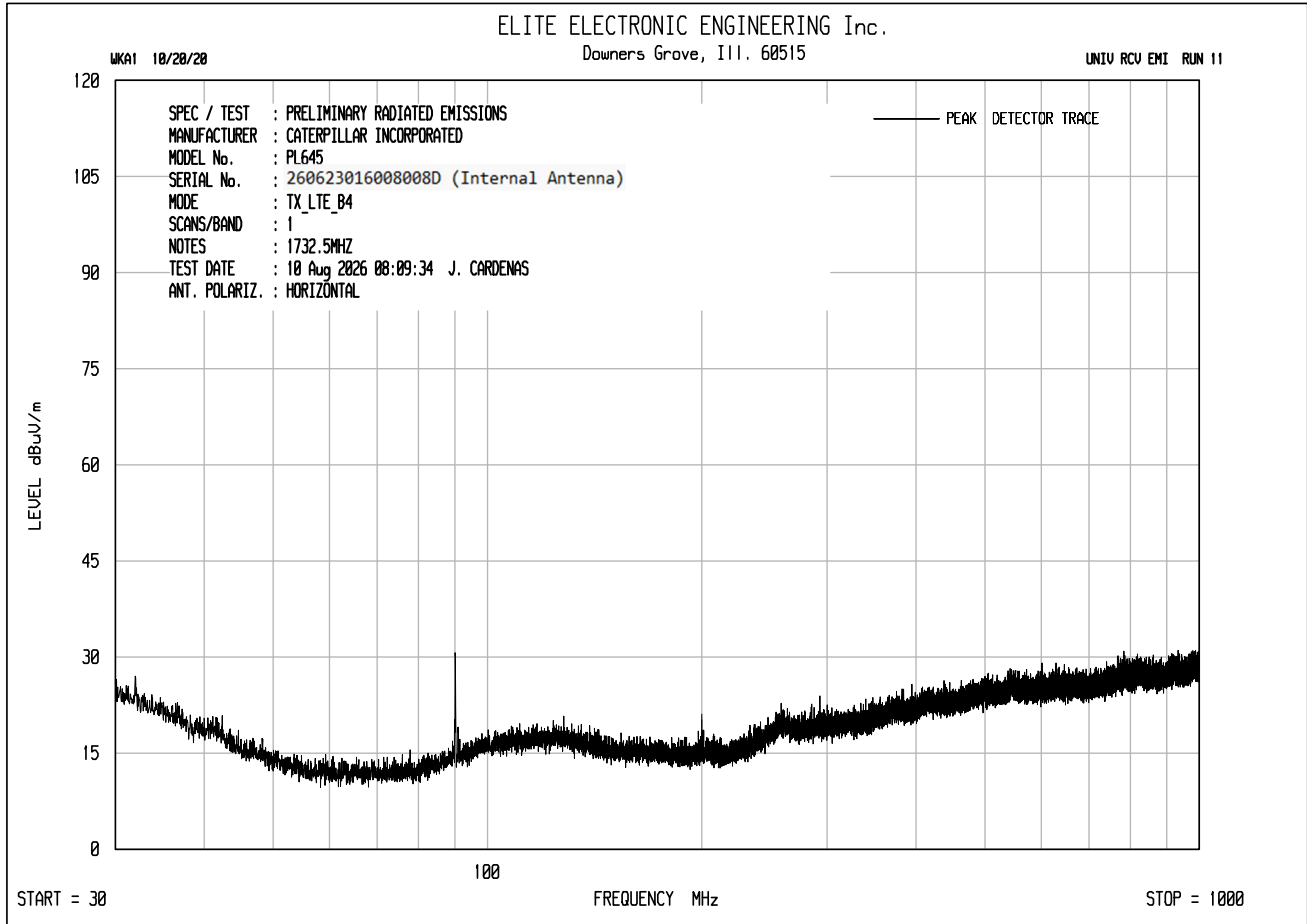
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 4 – 1732.5MHz
Notes	None

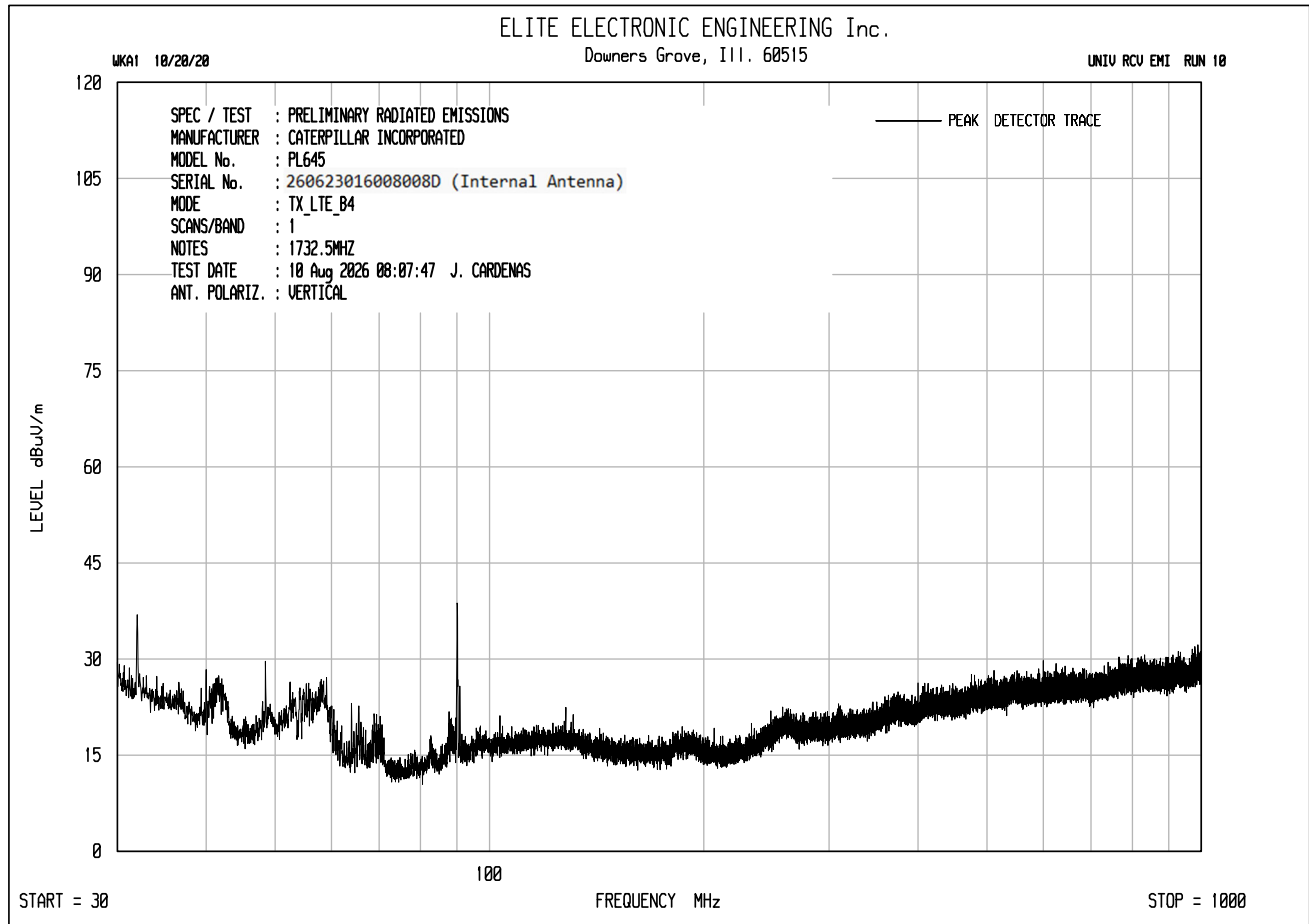






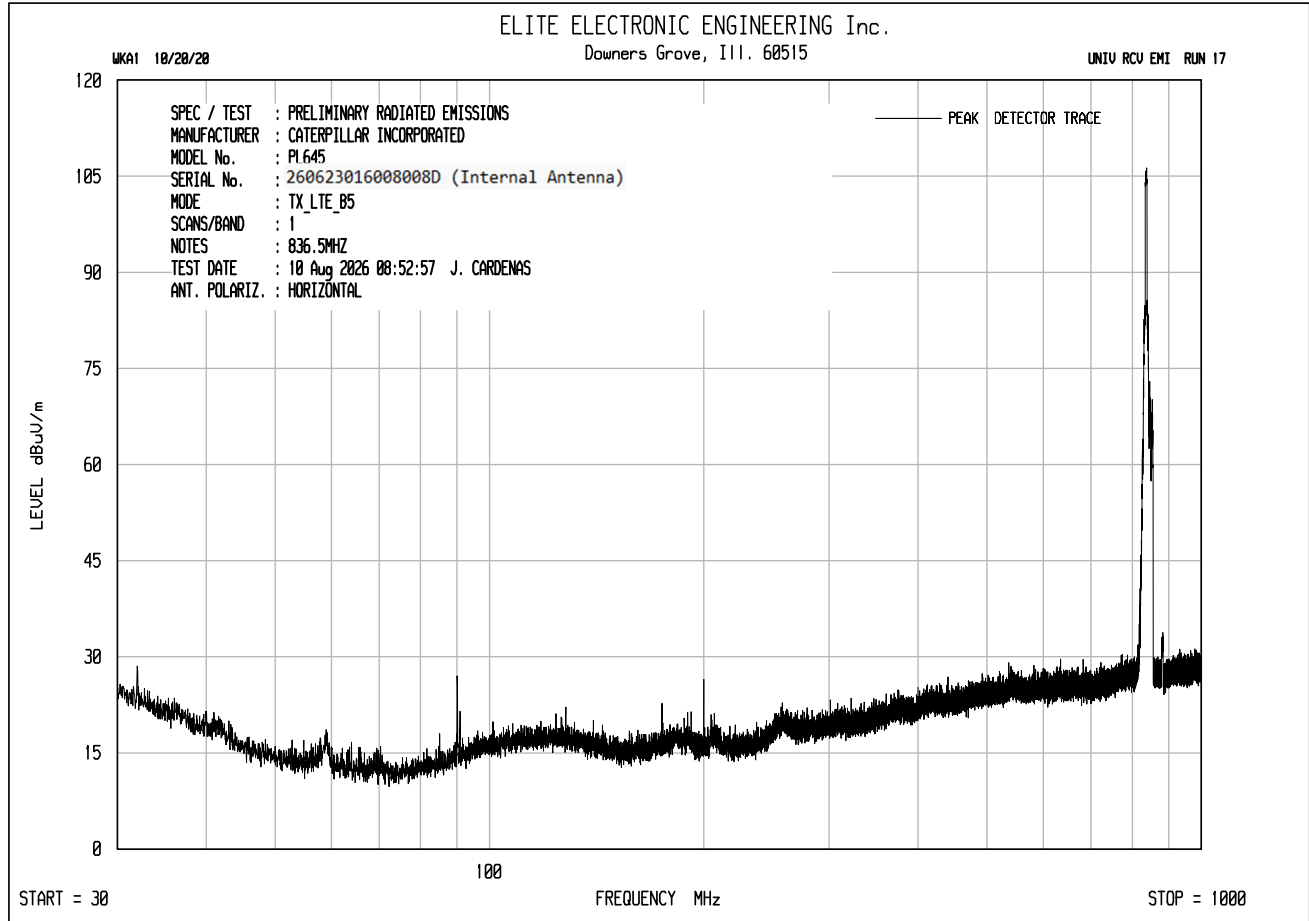


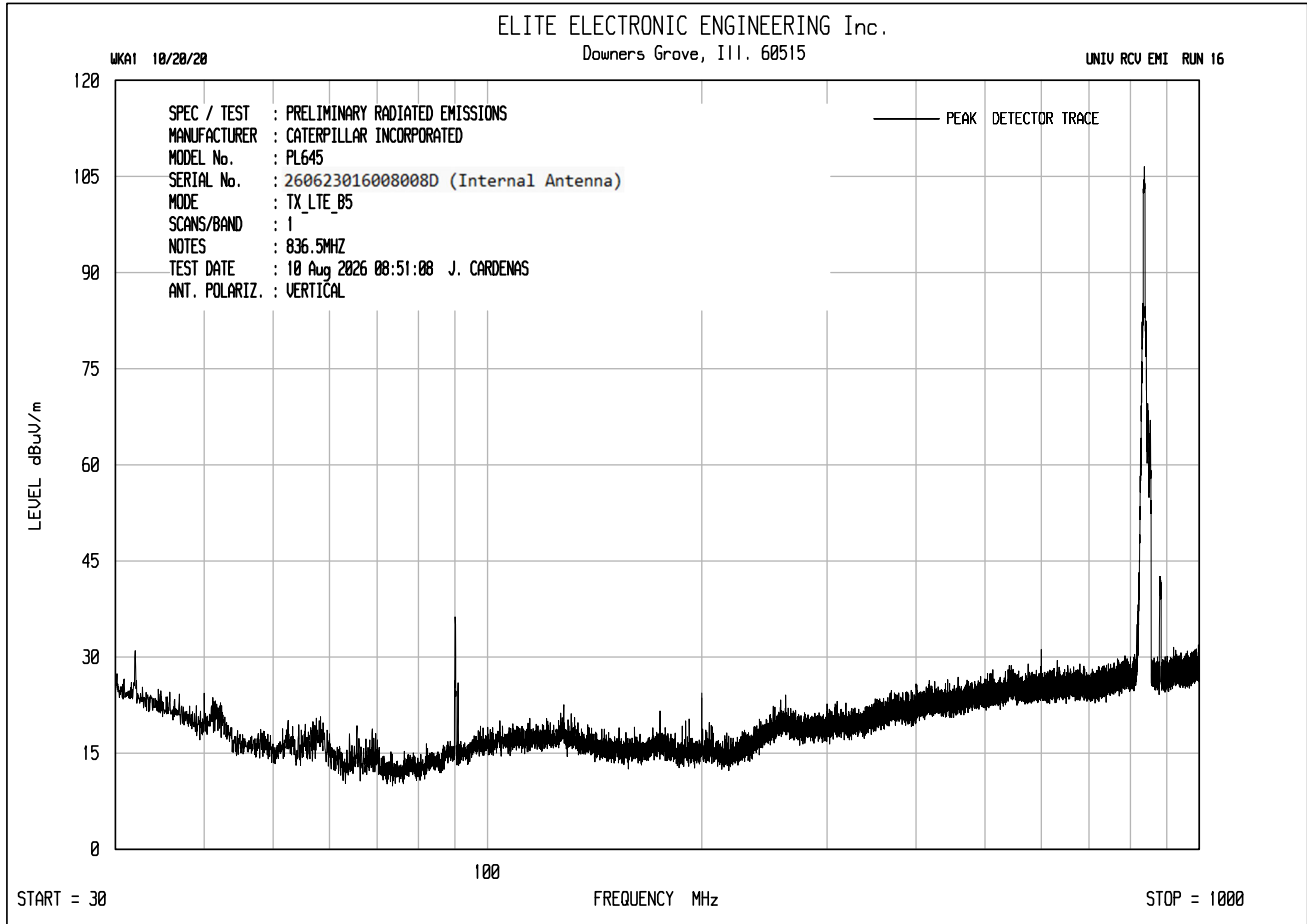


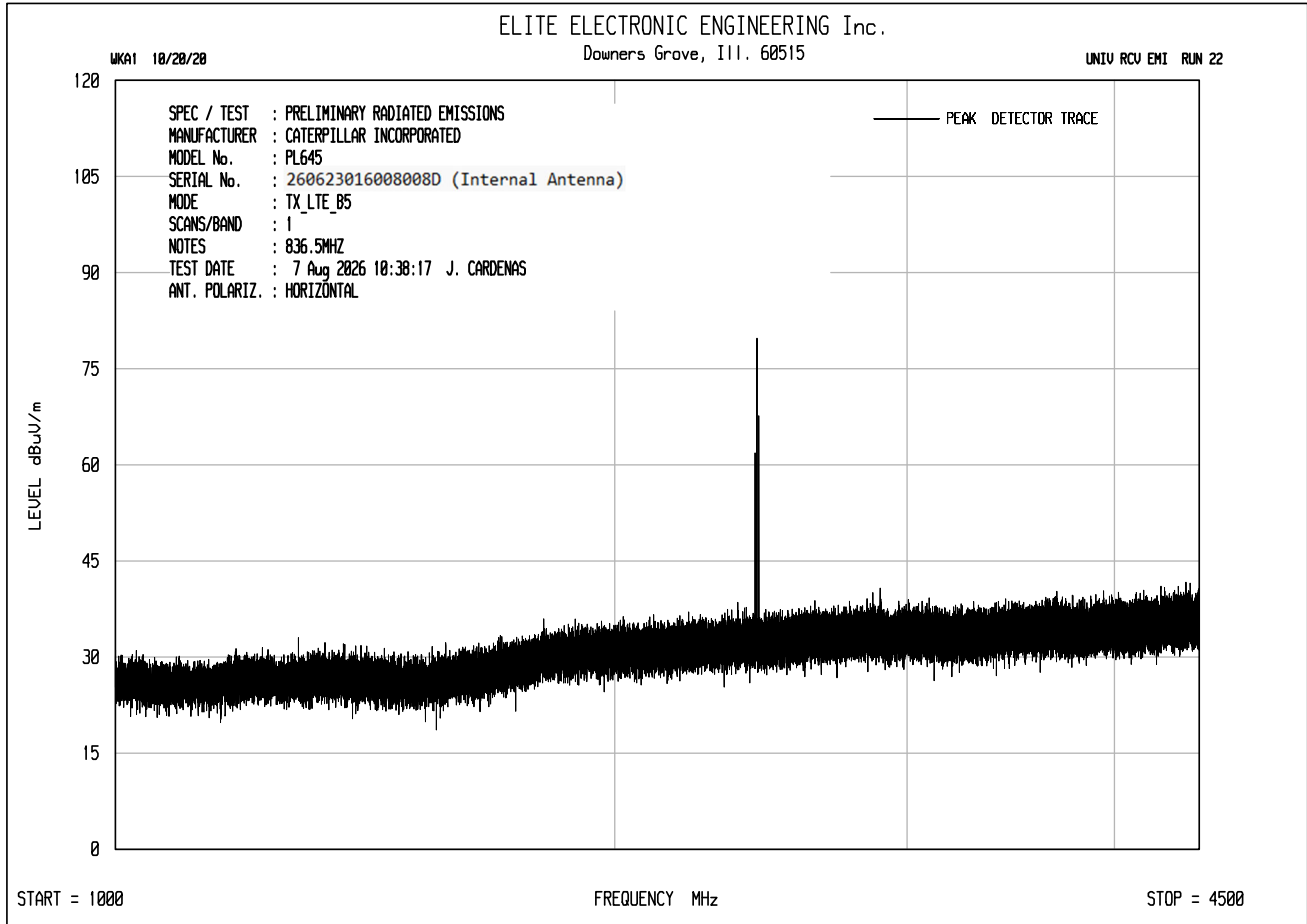


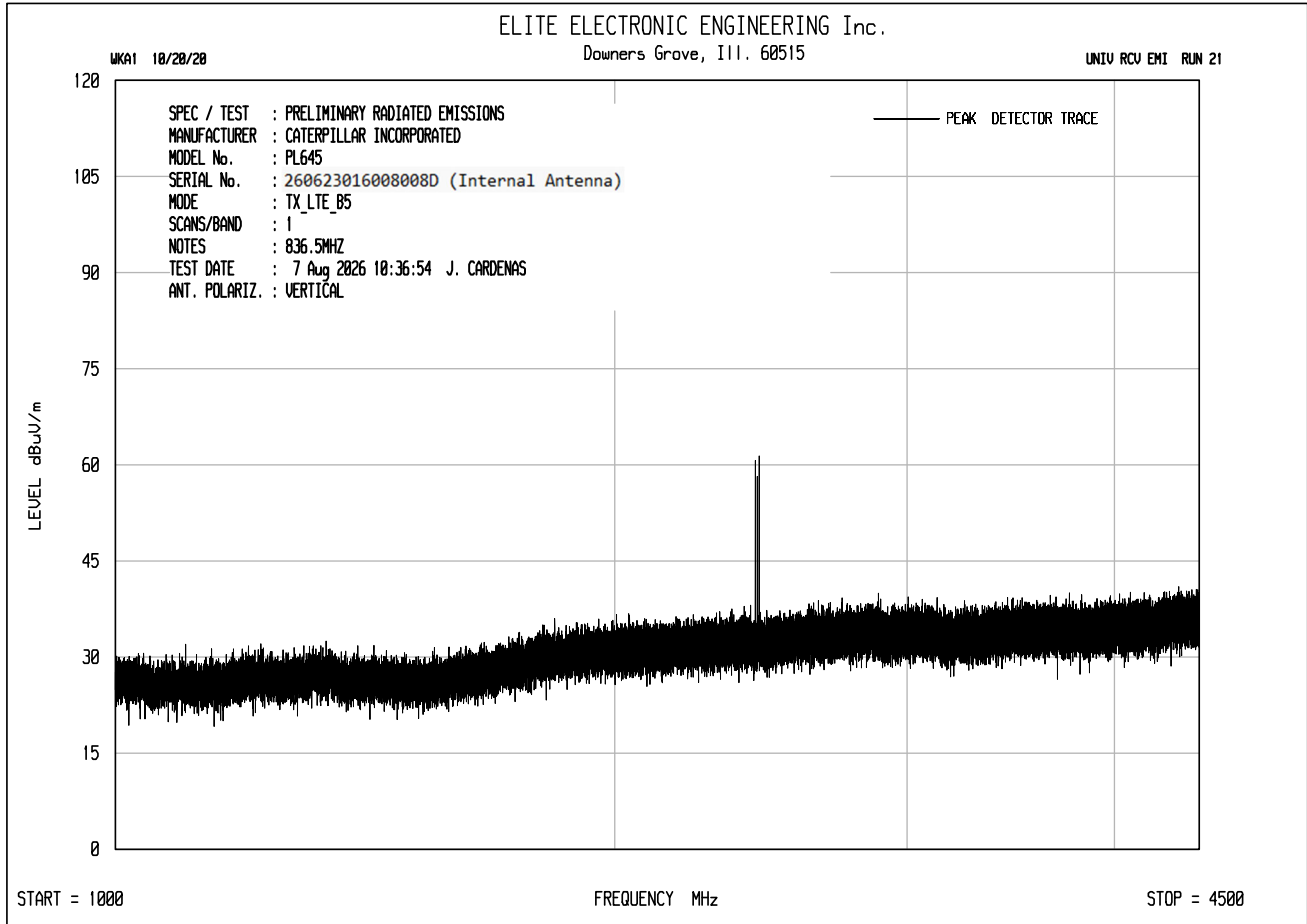
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
3465.00	H	27.0	Ambient	-37.7	4.8	4.2	-37.1	60.1	36.0
3465.00	V	26.5	Ambient	-36.6	4.8	4.2	-36.0	59.0	36.0
5197.50	H	48.6	Ambient	-50.0	5.0	5.0	-50.0	73.0	36.0
5197.50	V	48.5	Ambient	-50.2	5.0	5.0	-50.2	73.3	36.0

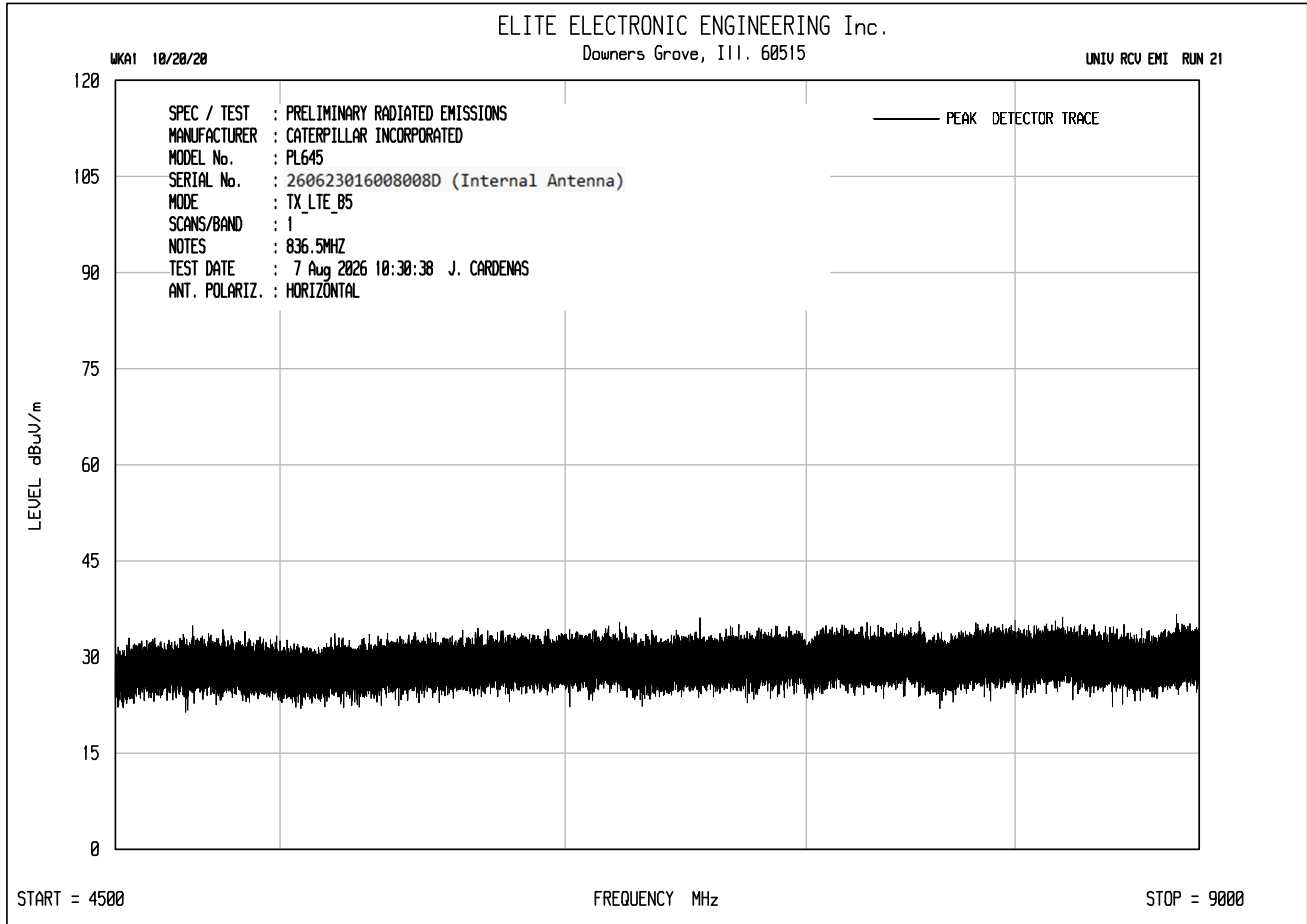
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 5 – 836.5MHz
Notes	None

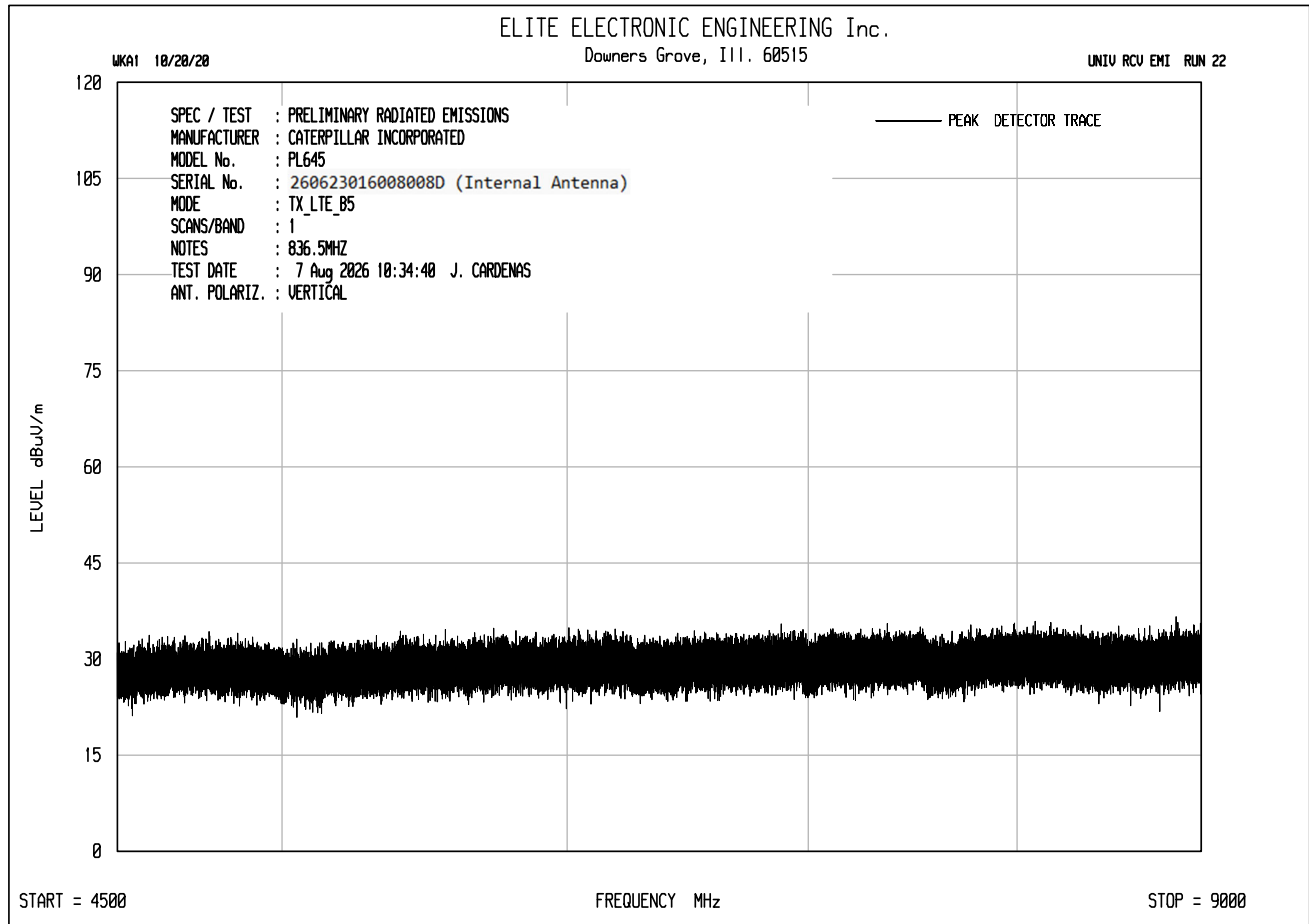






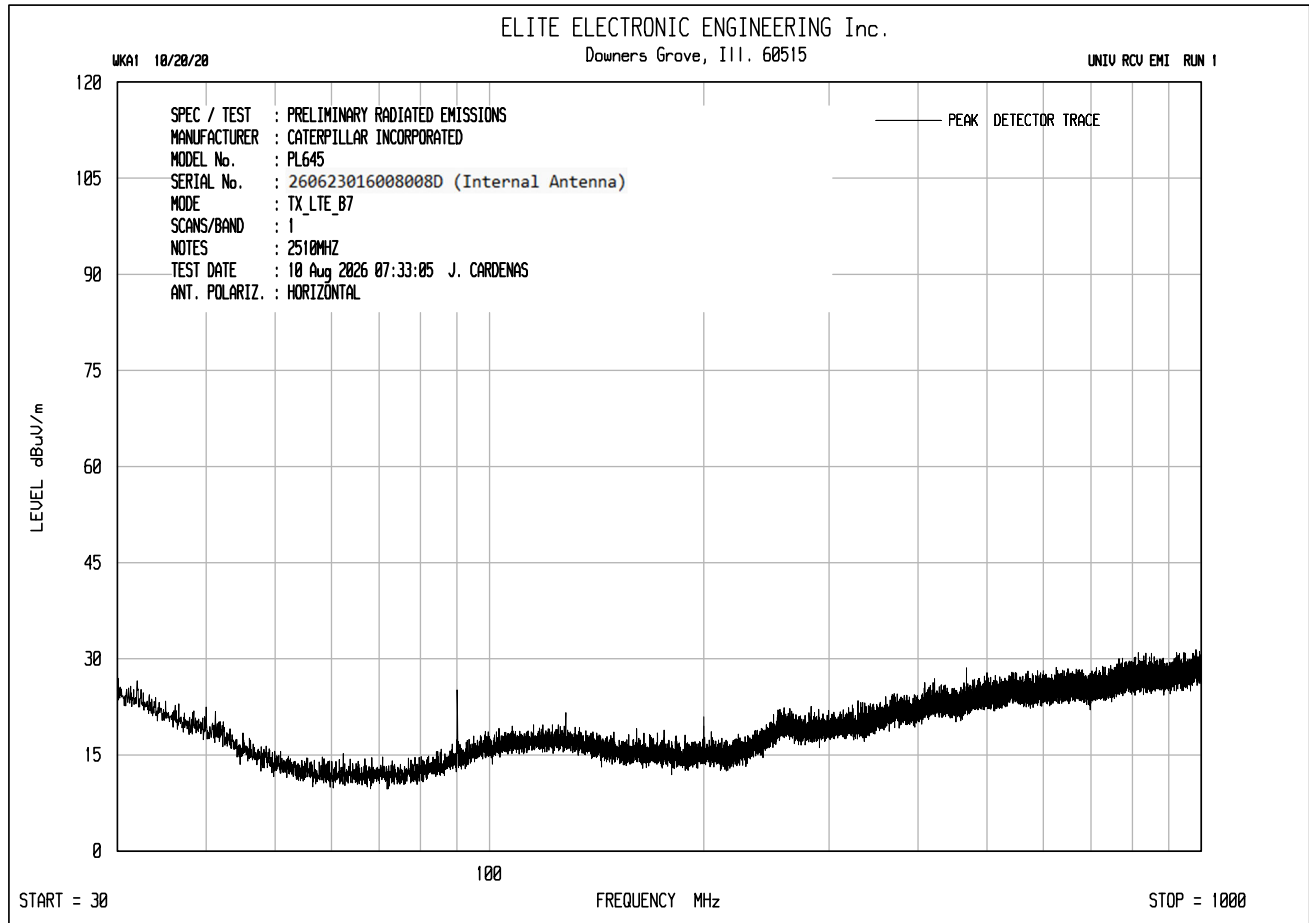


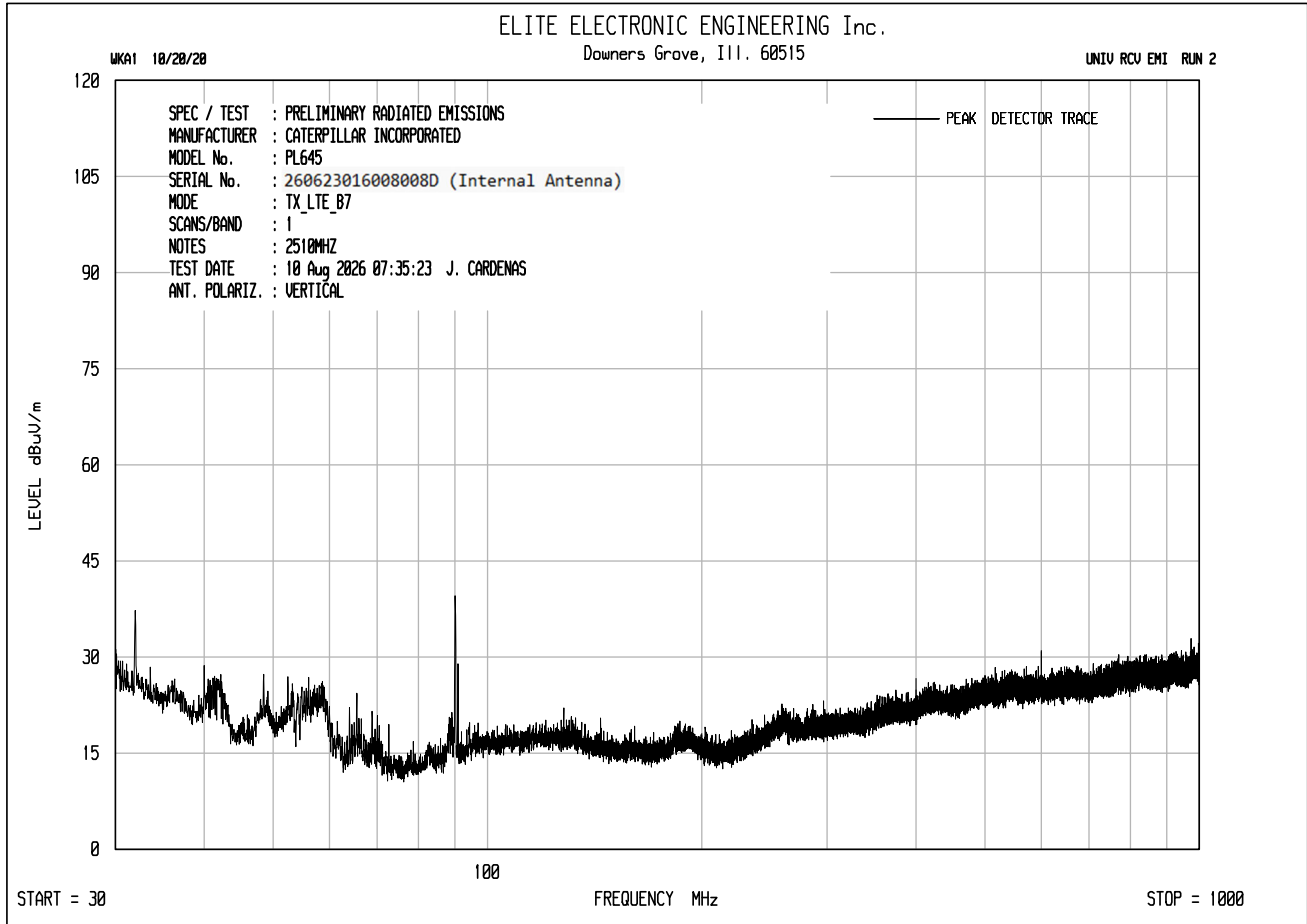


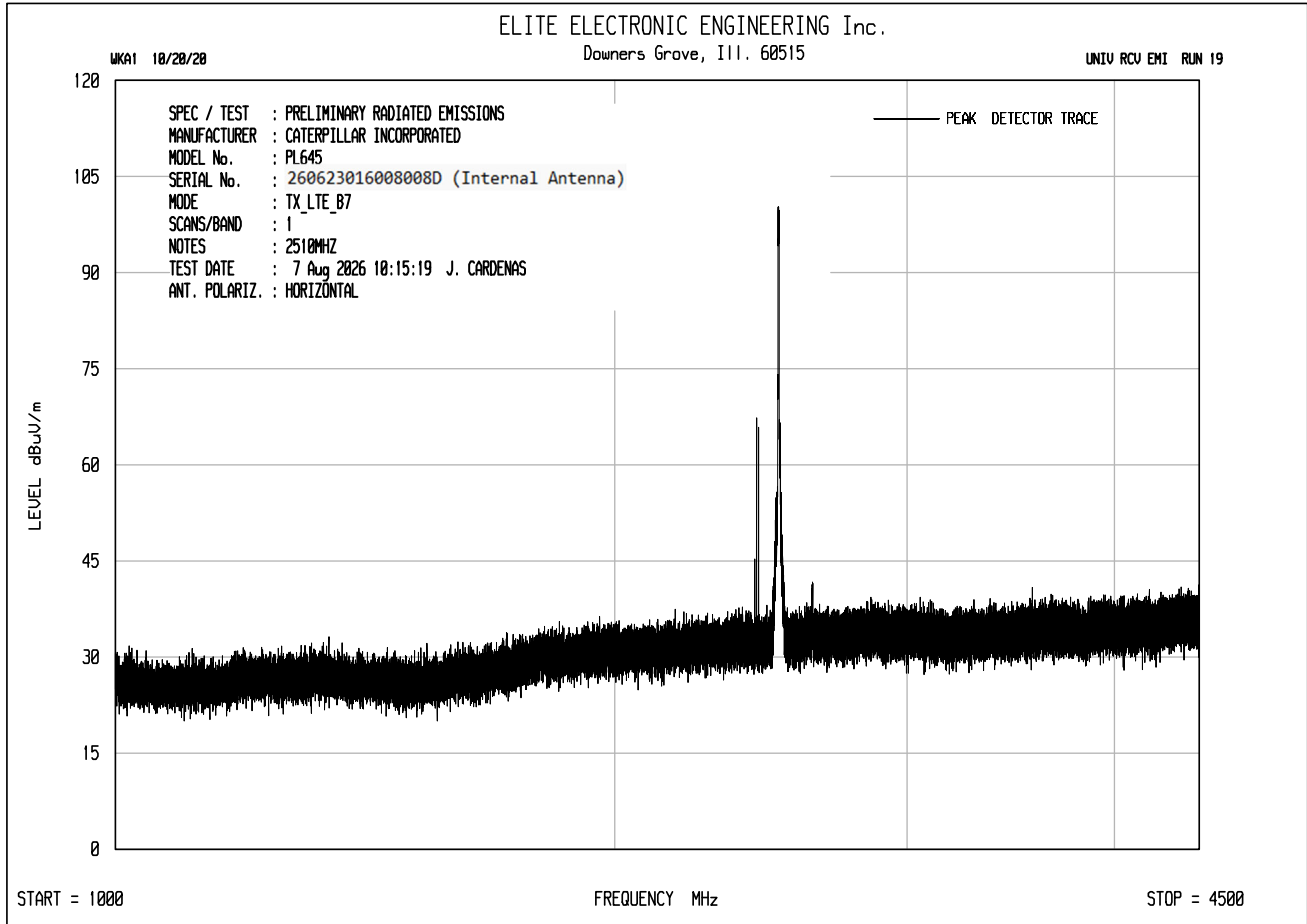


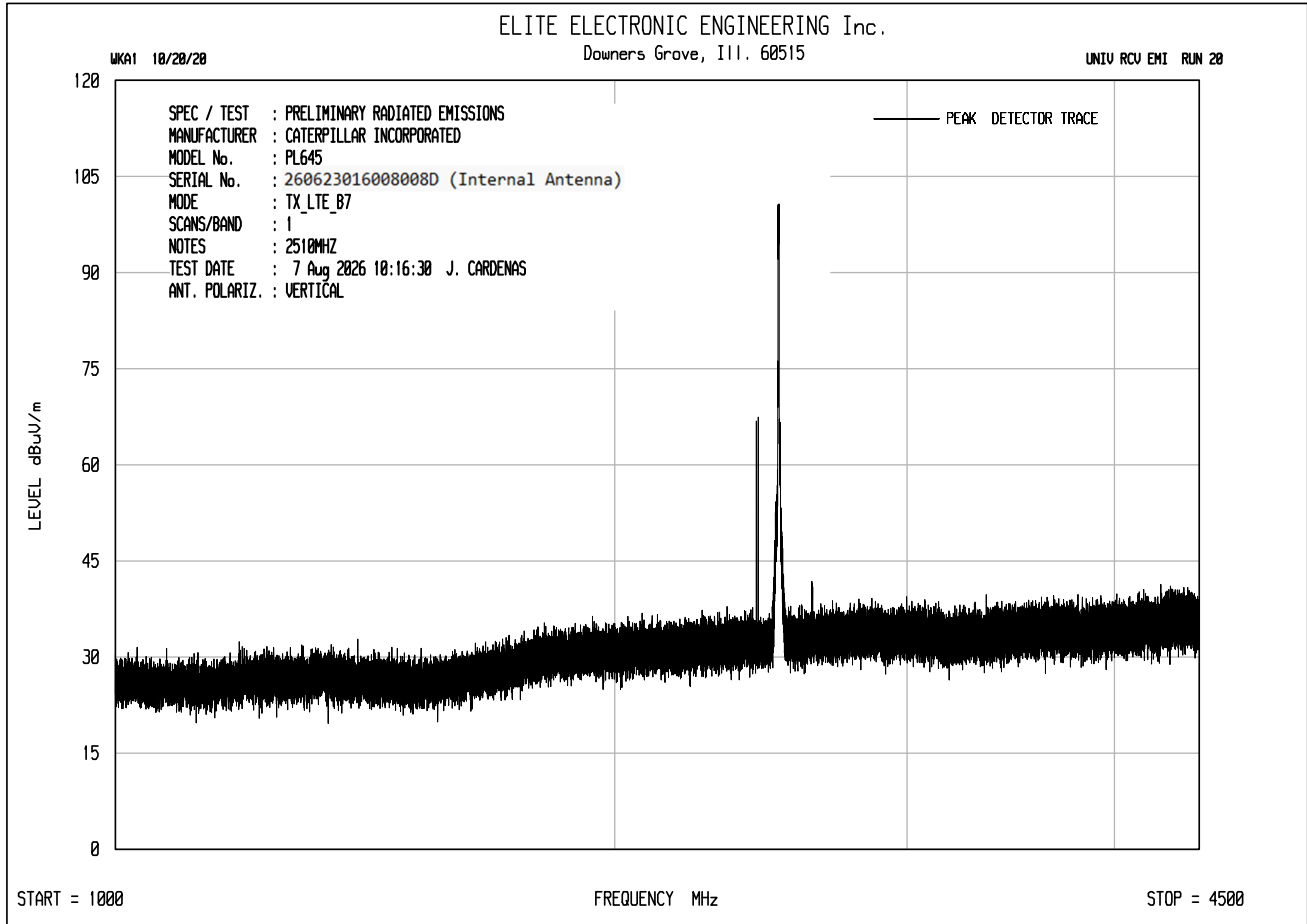
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
1673.20	H	25.5	Ambient	-43.3	2.5	2.8	-43.6	65.6	35.0
1673.20	V	24.9	Ambient	-41.1	2.5	2.8	-41.4	63.4	35.0
2509.80	H	49.0	Ambient	-57.2	2.6	3.5	-58.2	80.3	35.0
2509.80	V	50.1	Ambient	-55.2	2.6	3.5	-56.2	78.3	35.0

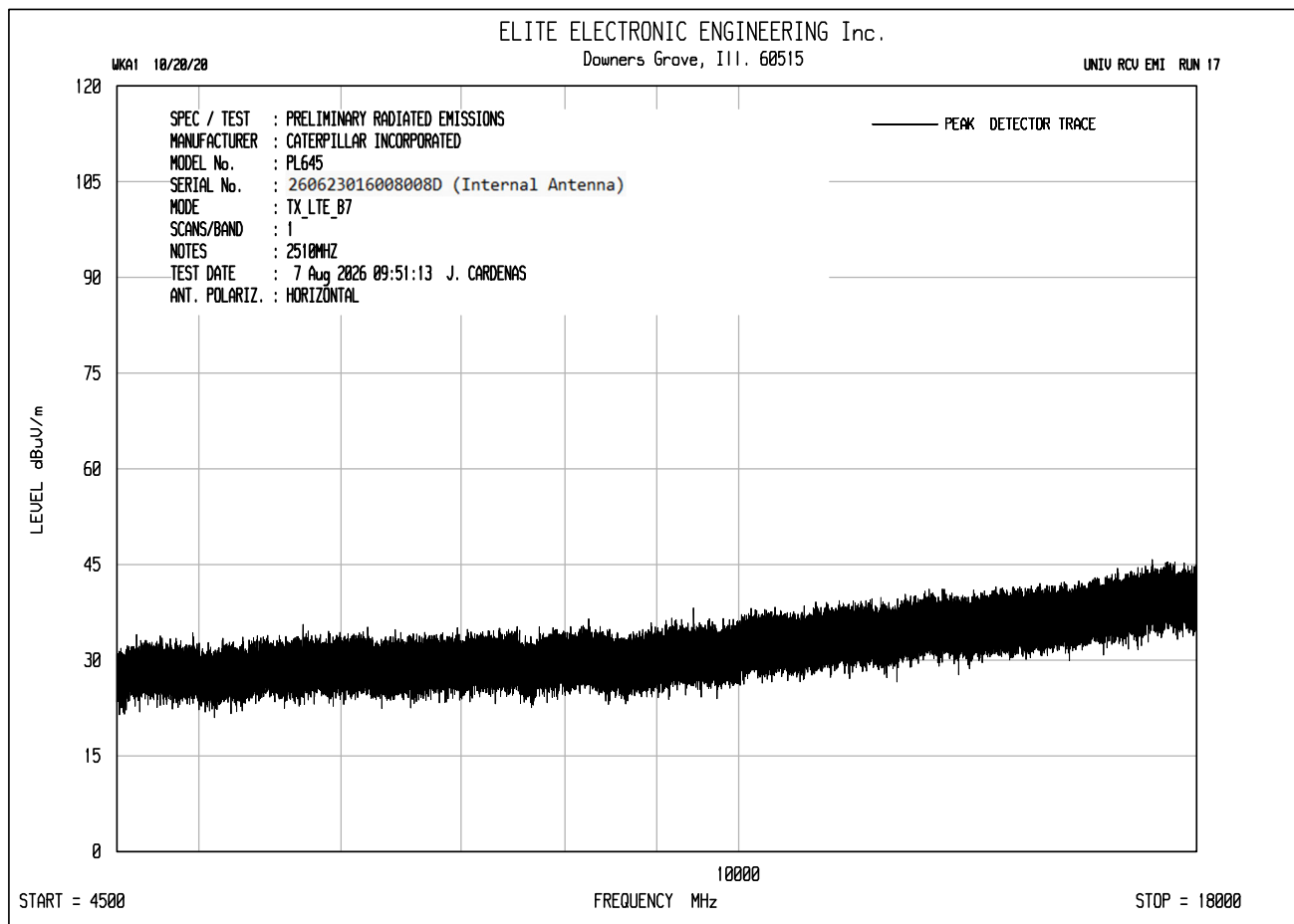
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 7 – 2510MHz
Notes	None

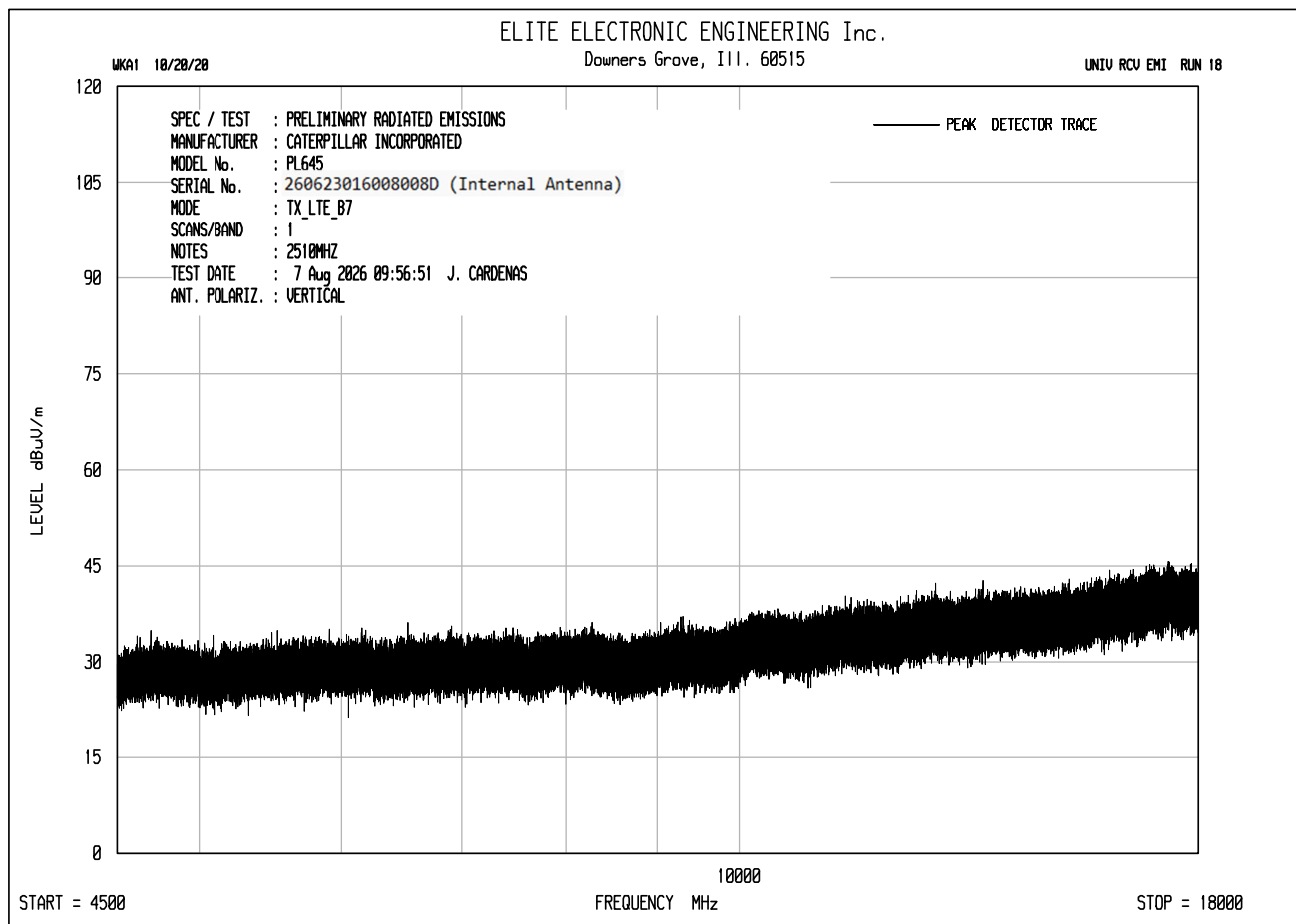


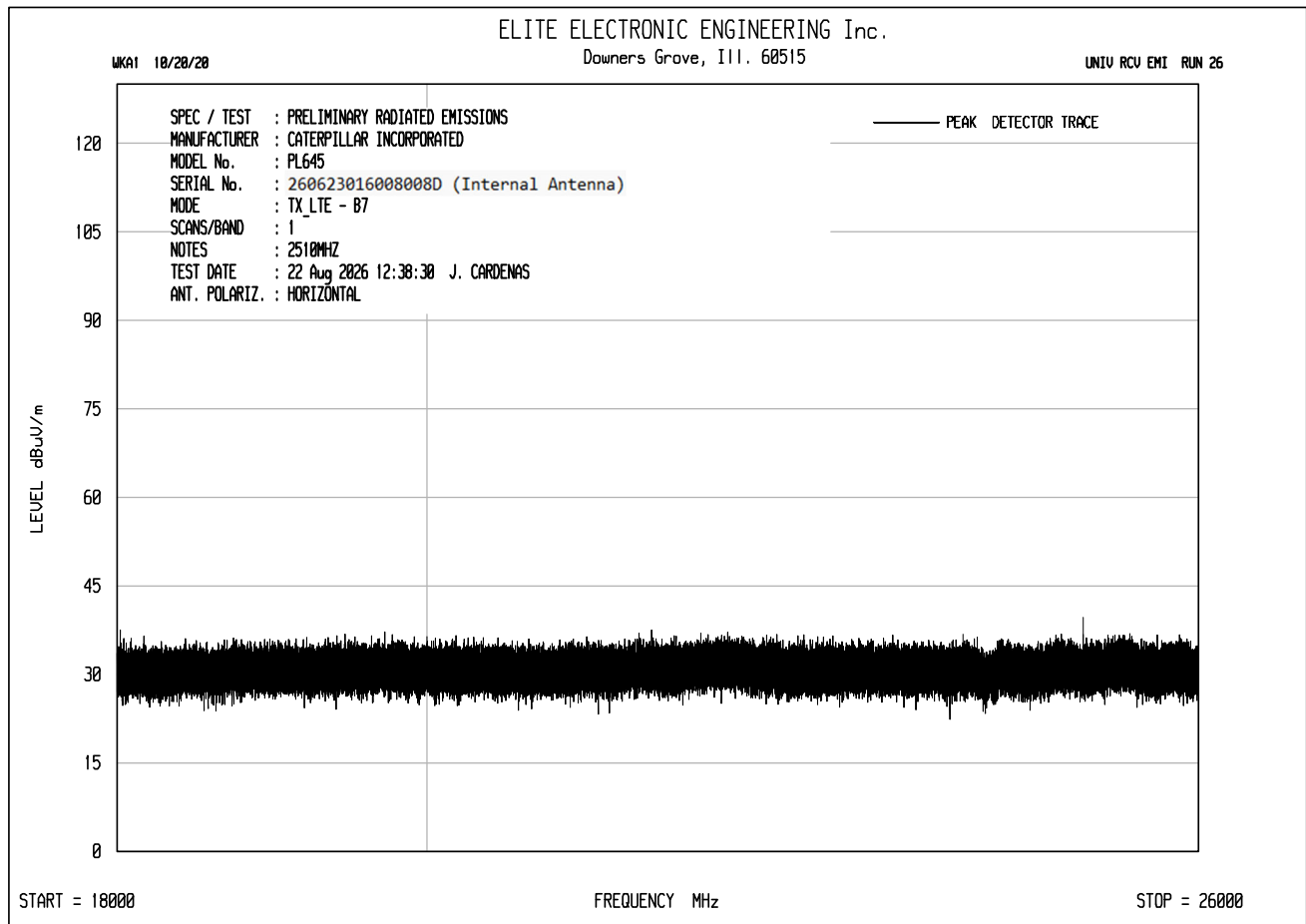


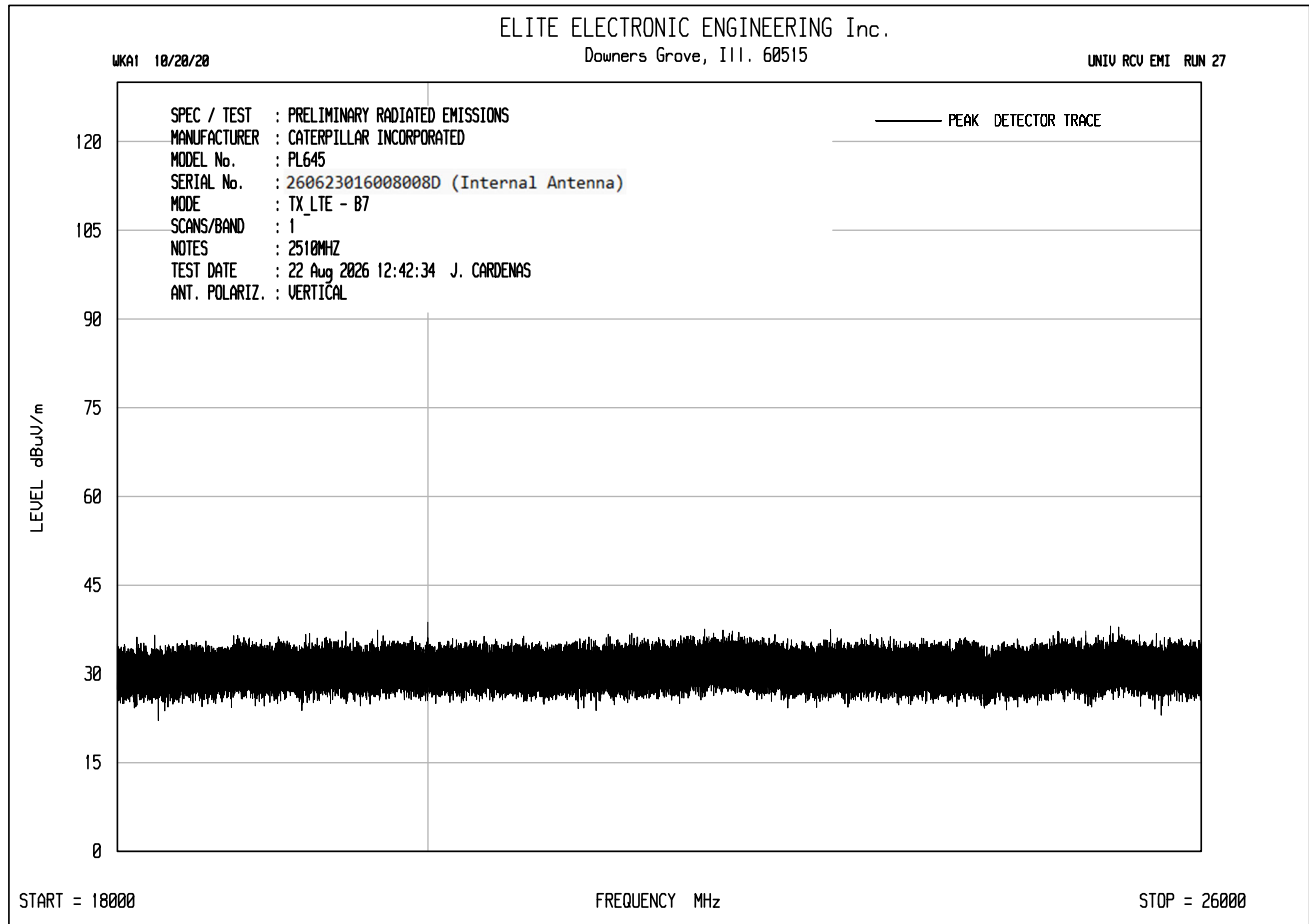






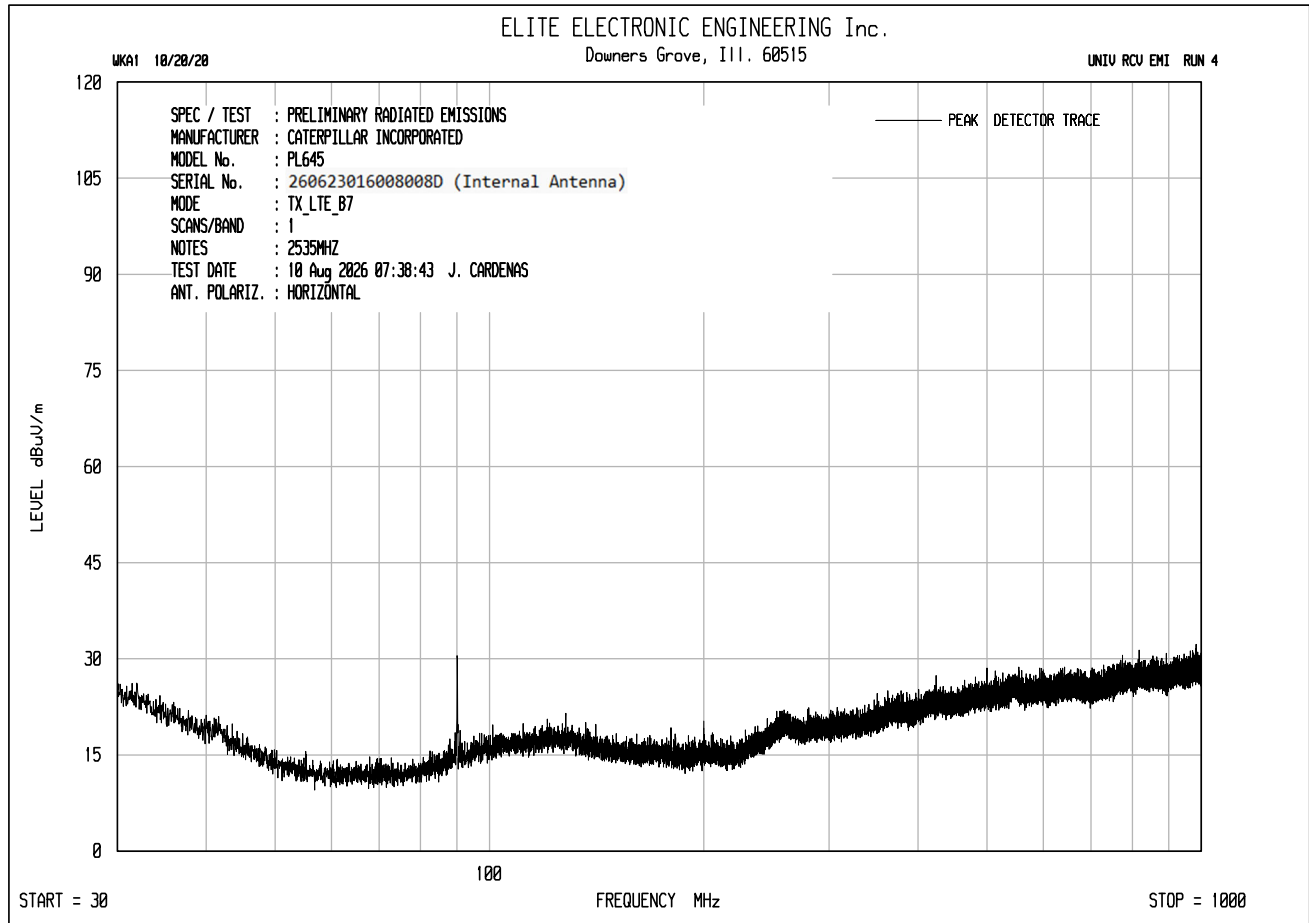


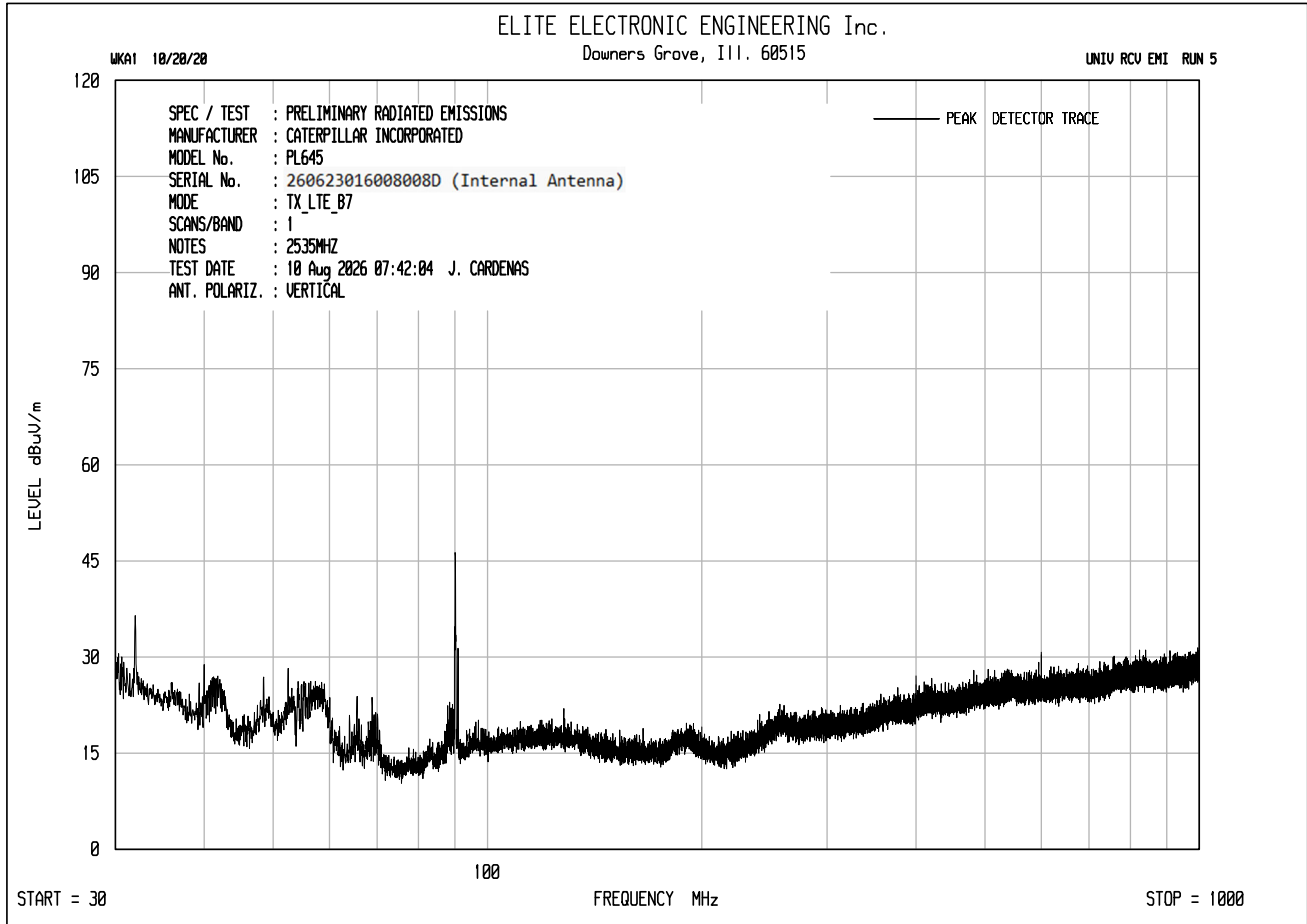


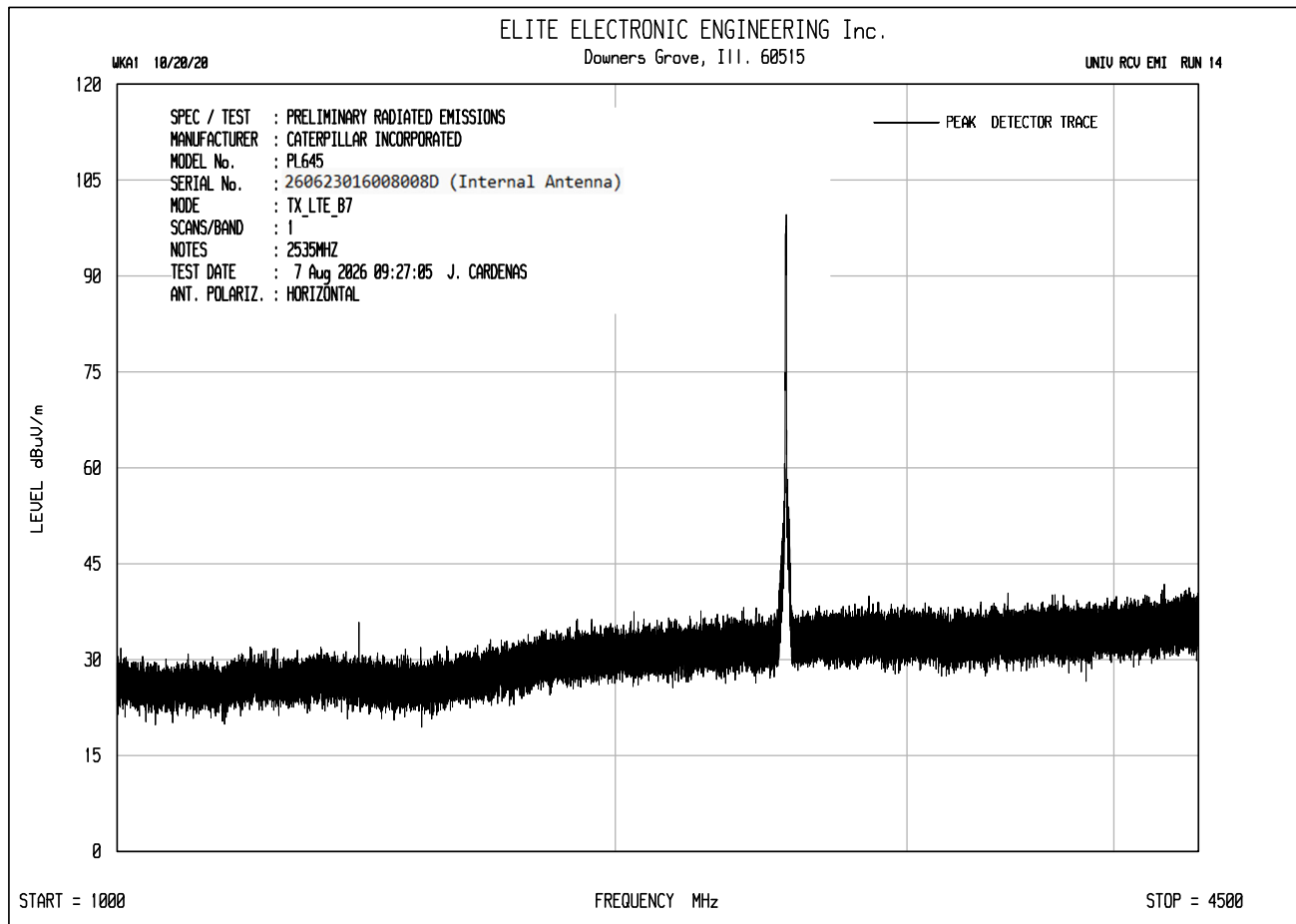


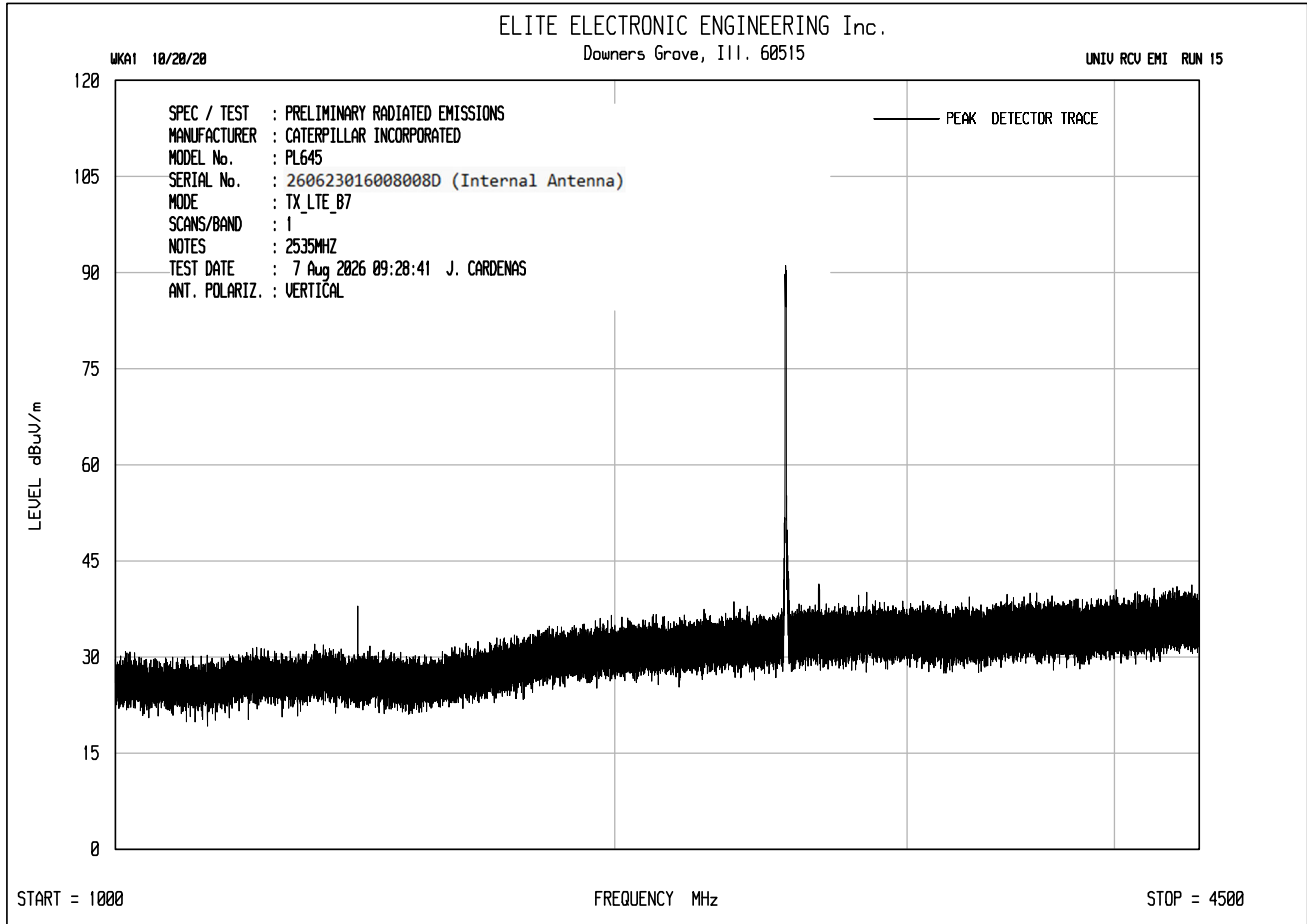
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
5020.00	H	48.5	Ambient	-51.4	5.5	4.9	-50.9	72.7	34.8
5020.00	V	48.8	Ambient	-49.6	5.5	4.9	-49.1	70.9	34.8

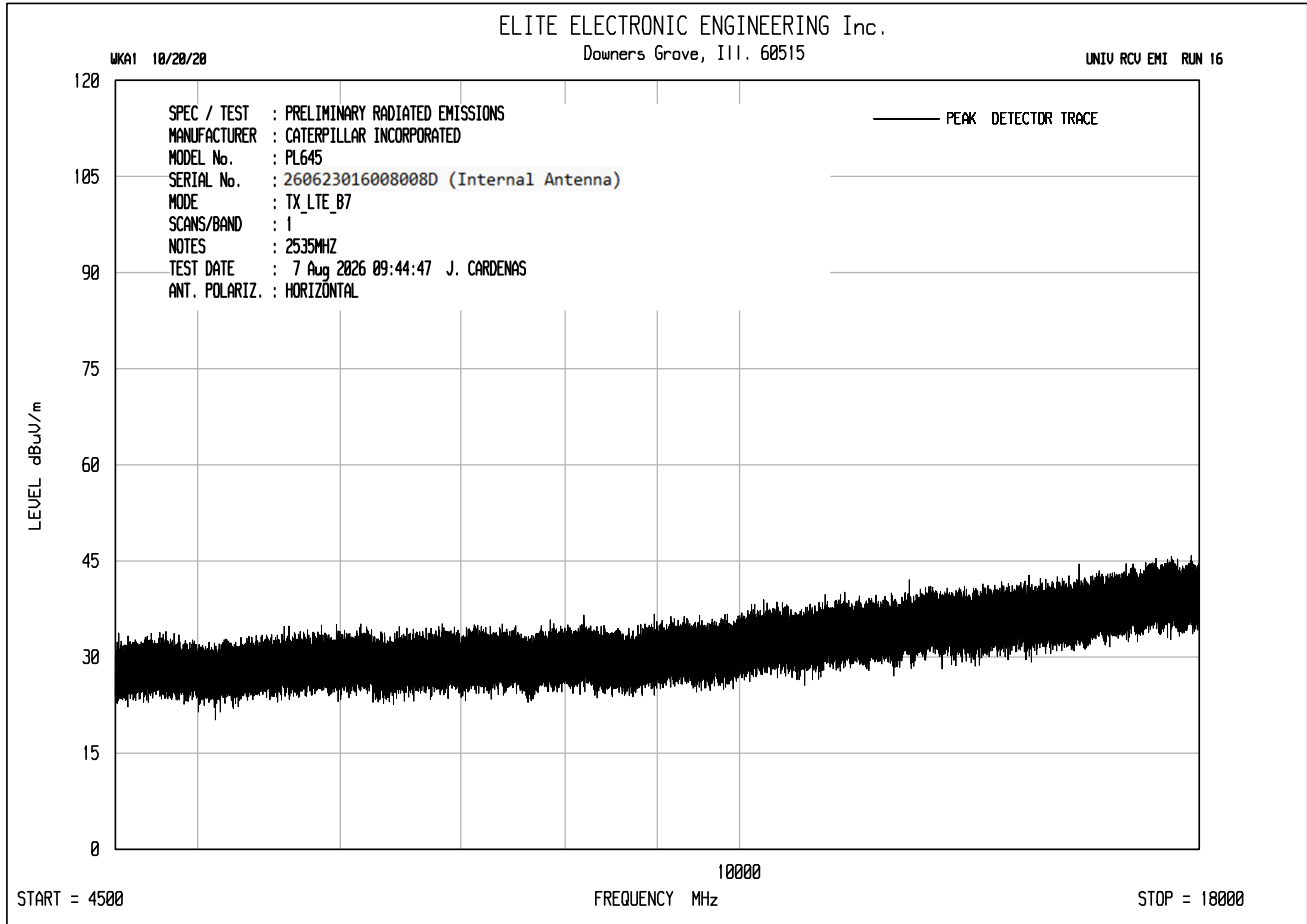
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 7 – 2535MHz
Notes	None

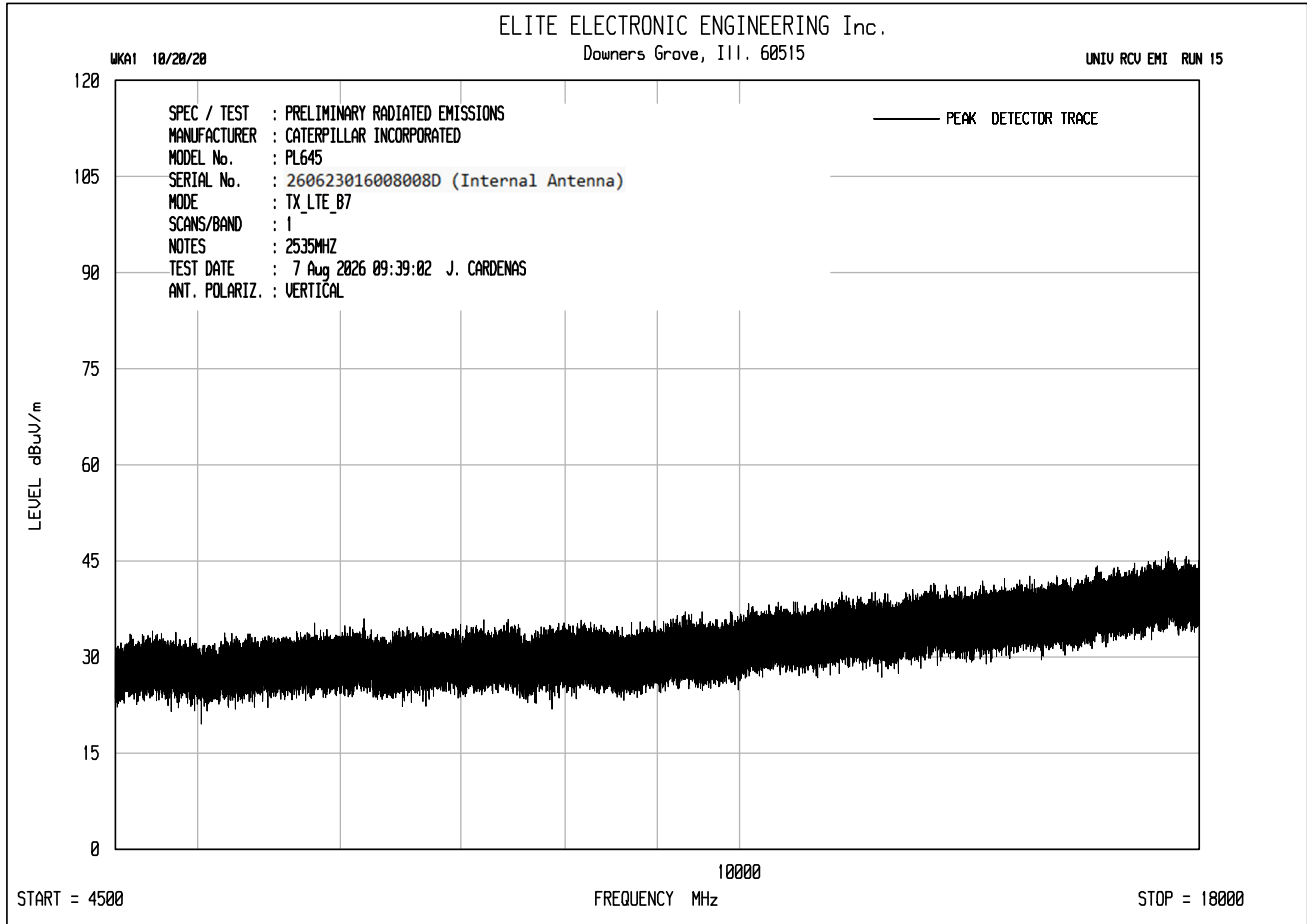


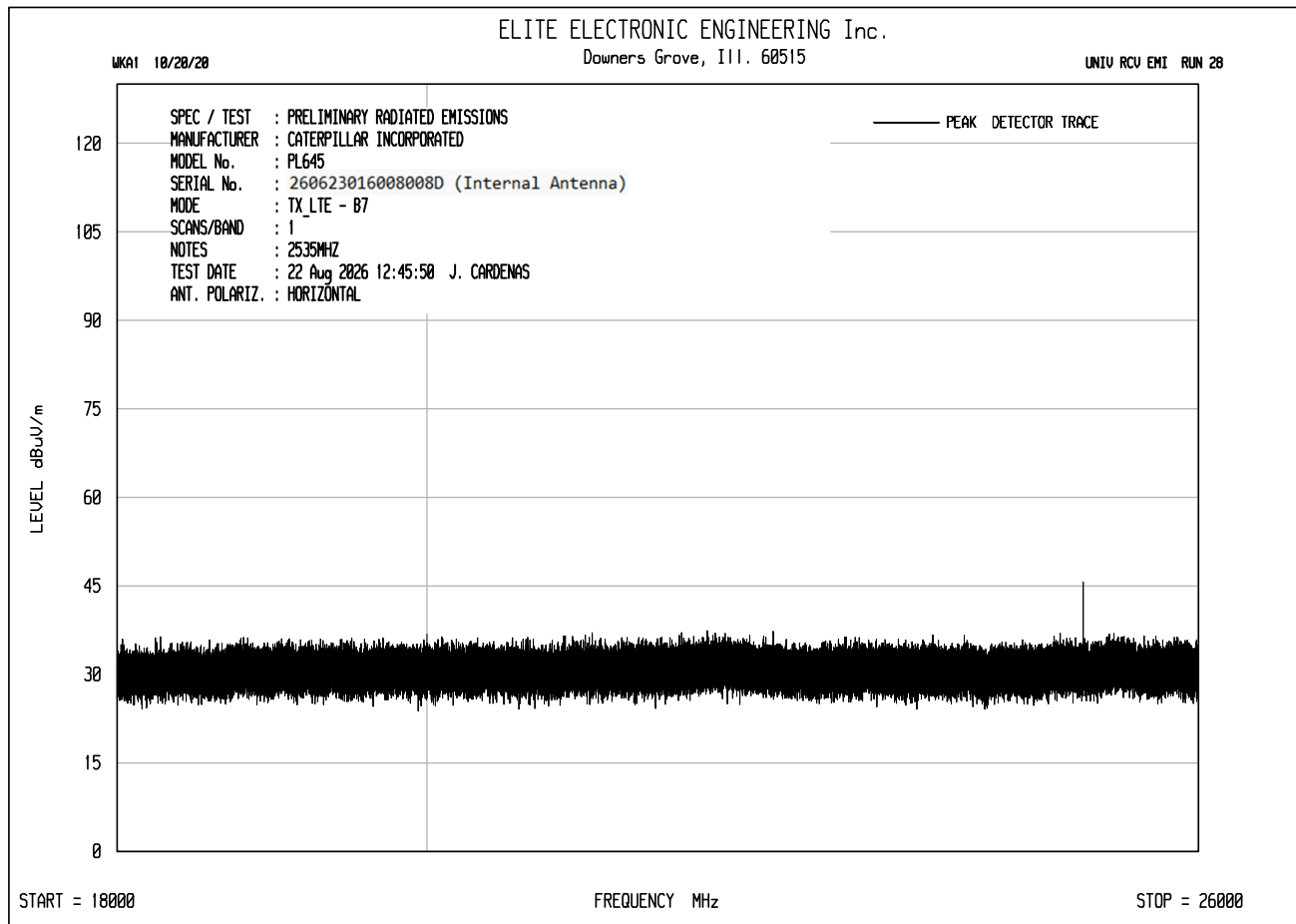


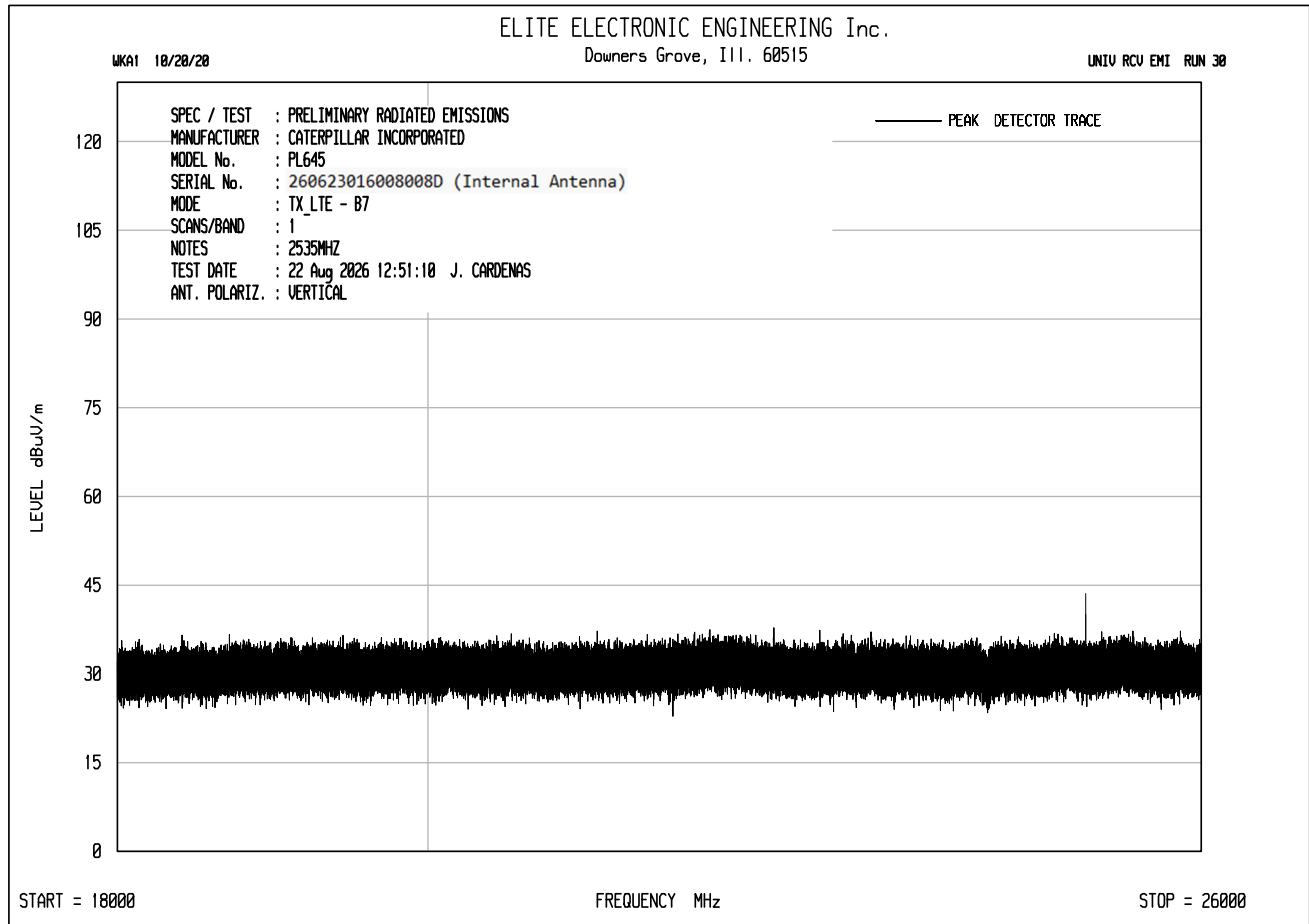






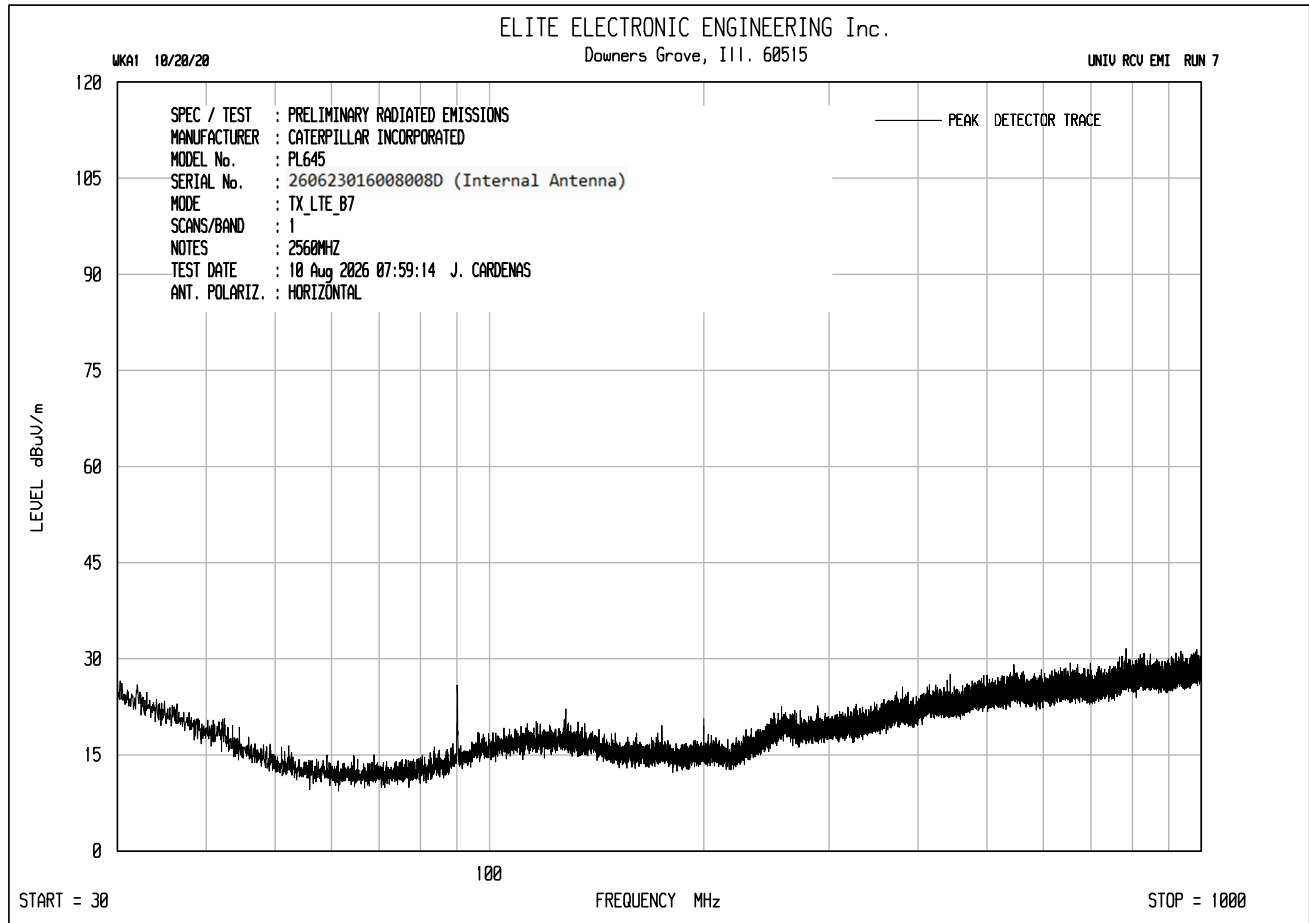


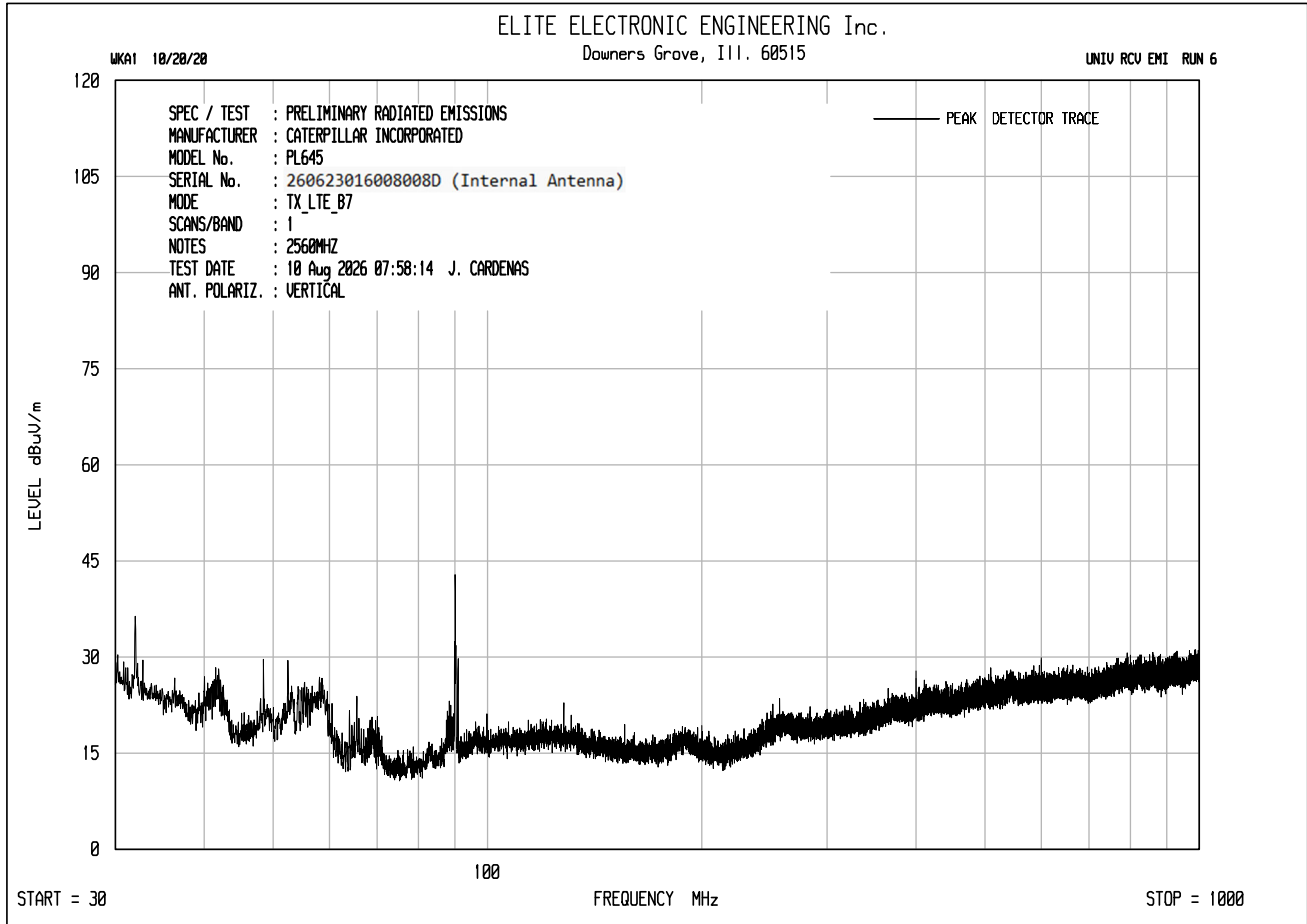


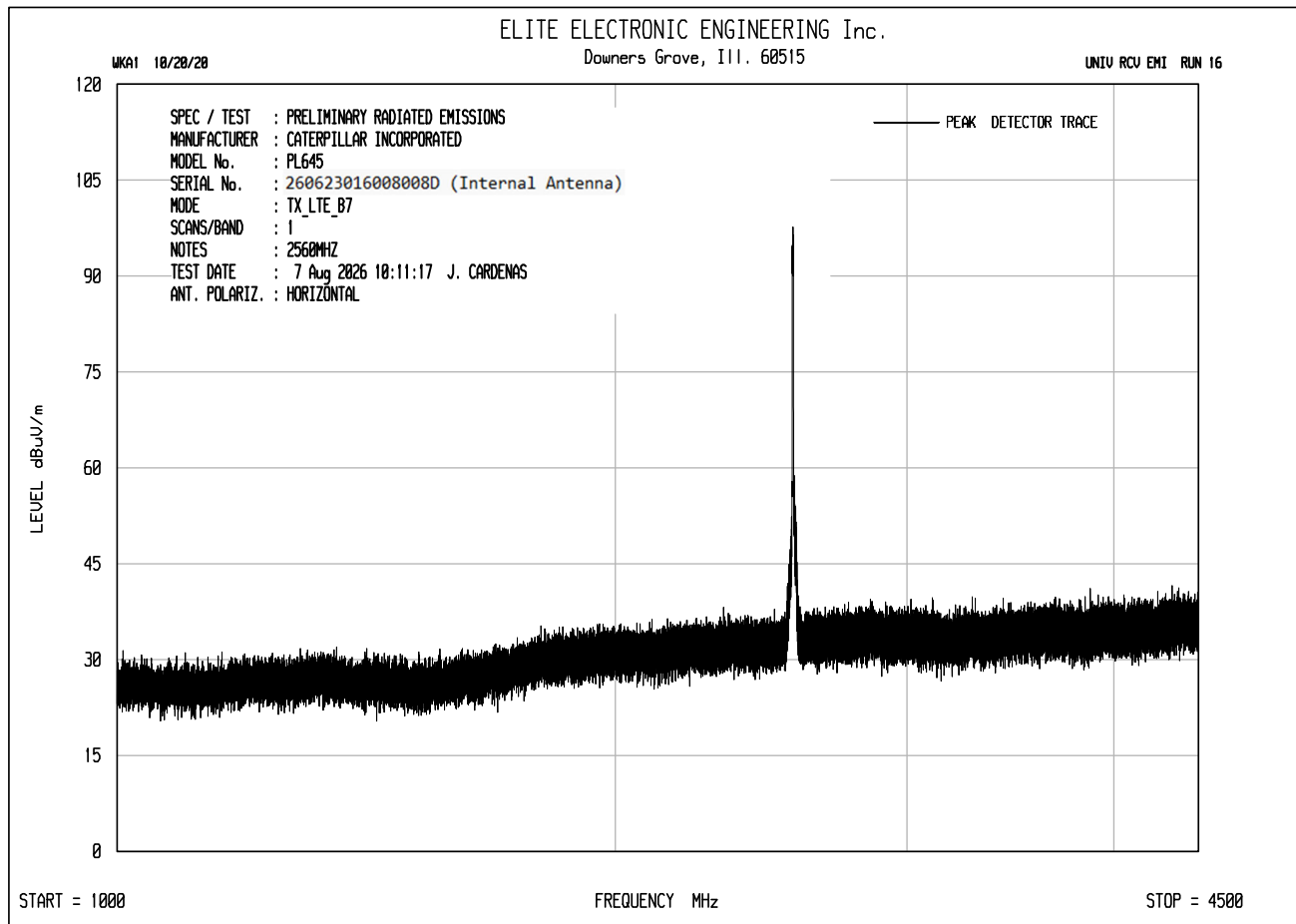


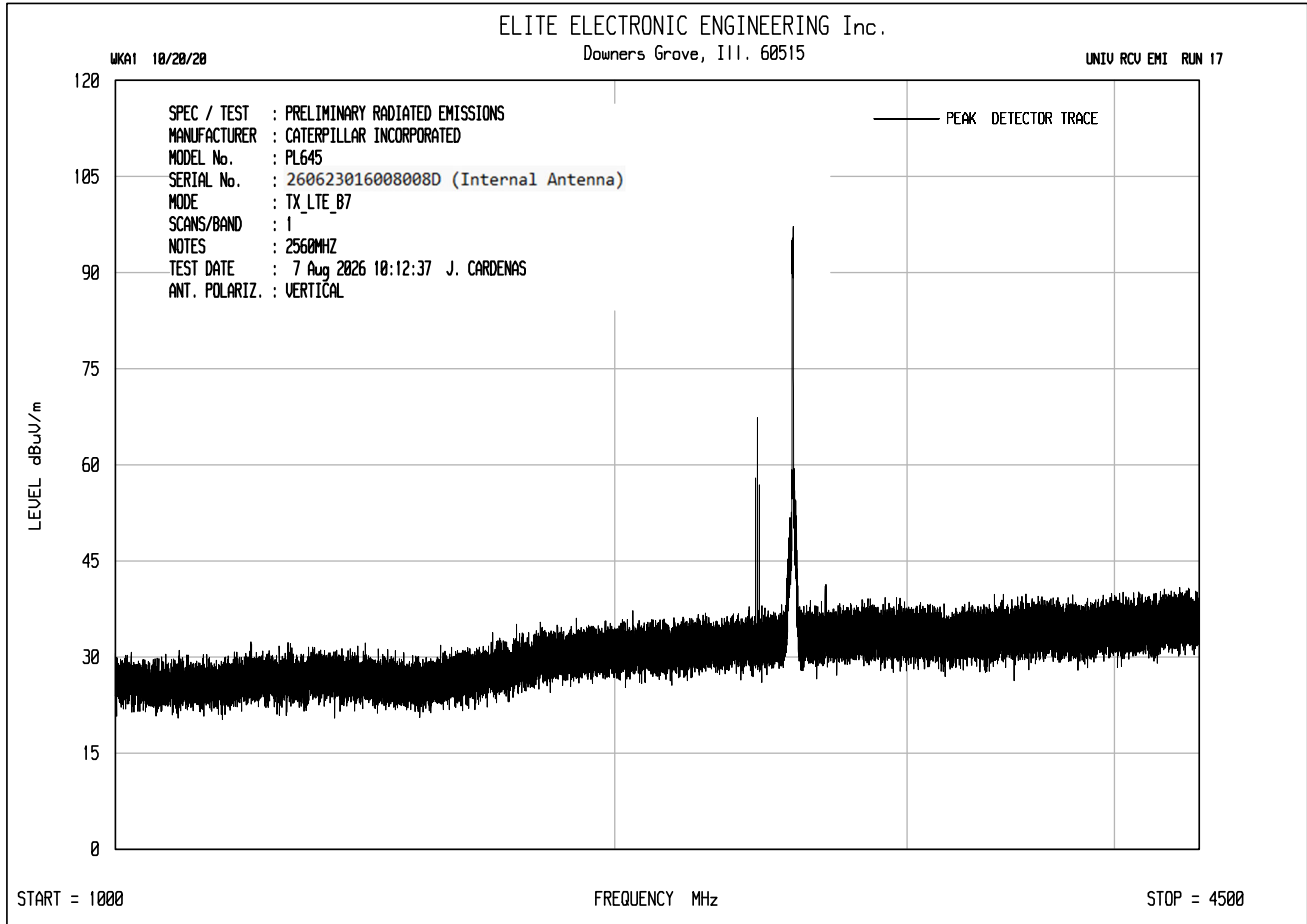
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
5070.00	H	48.6	Ambient	-50.9	5.3	5.0	-50.6	72.4	34.8
5070.00	V	48.3	Ambient	-50.2	5.3	5.0	-49.9	71.7	34.8

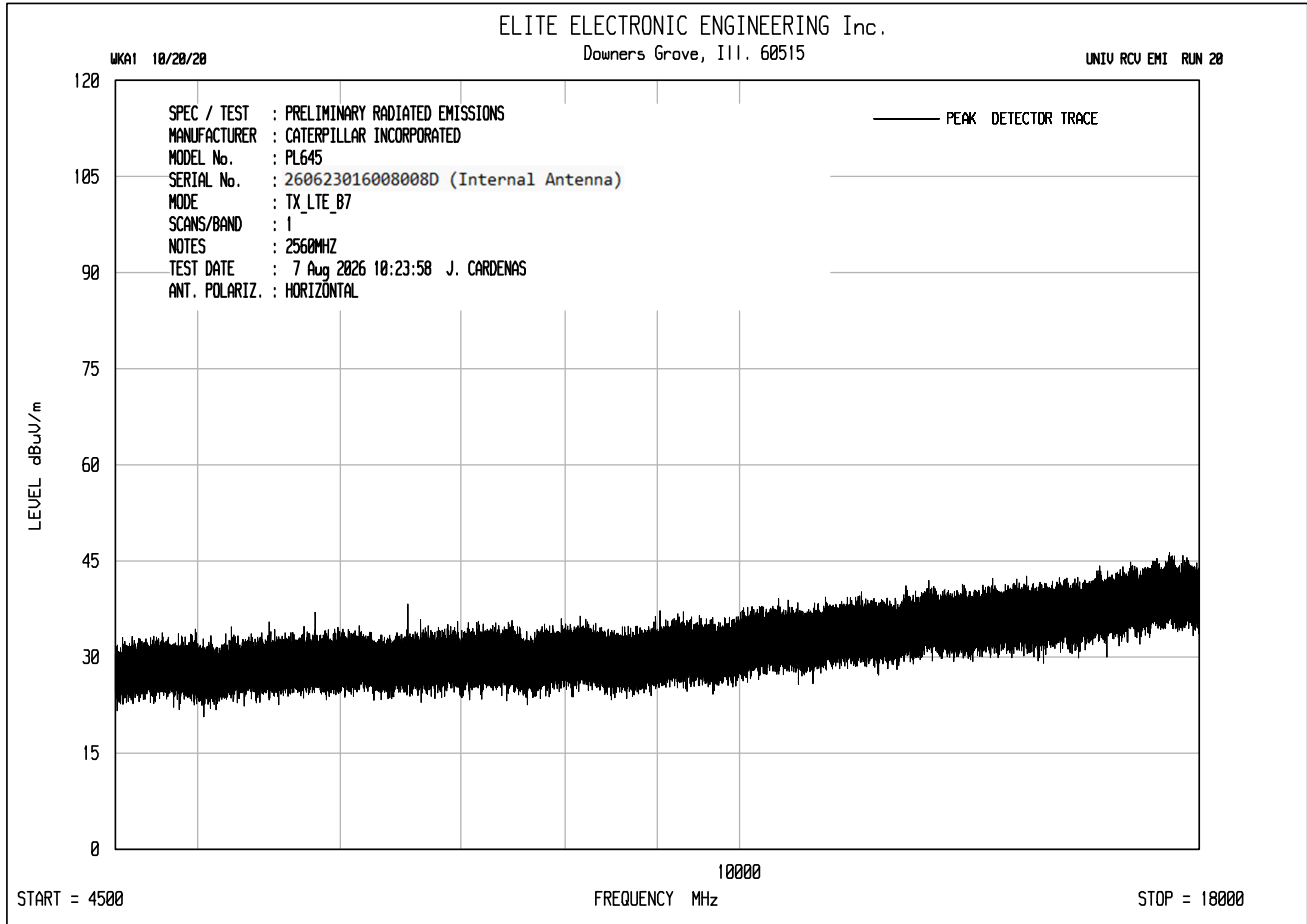
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 7 – 2560MHz
Notes	None

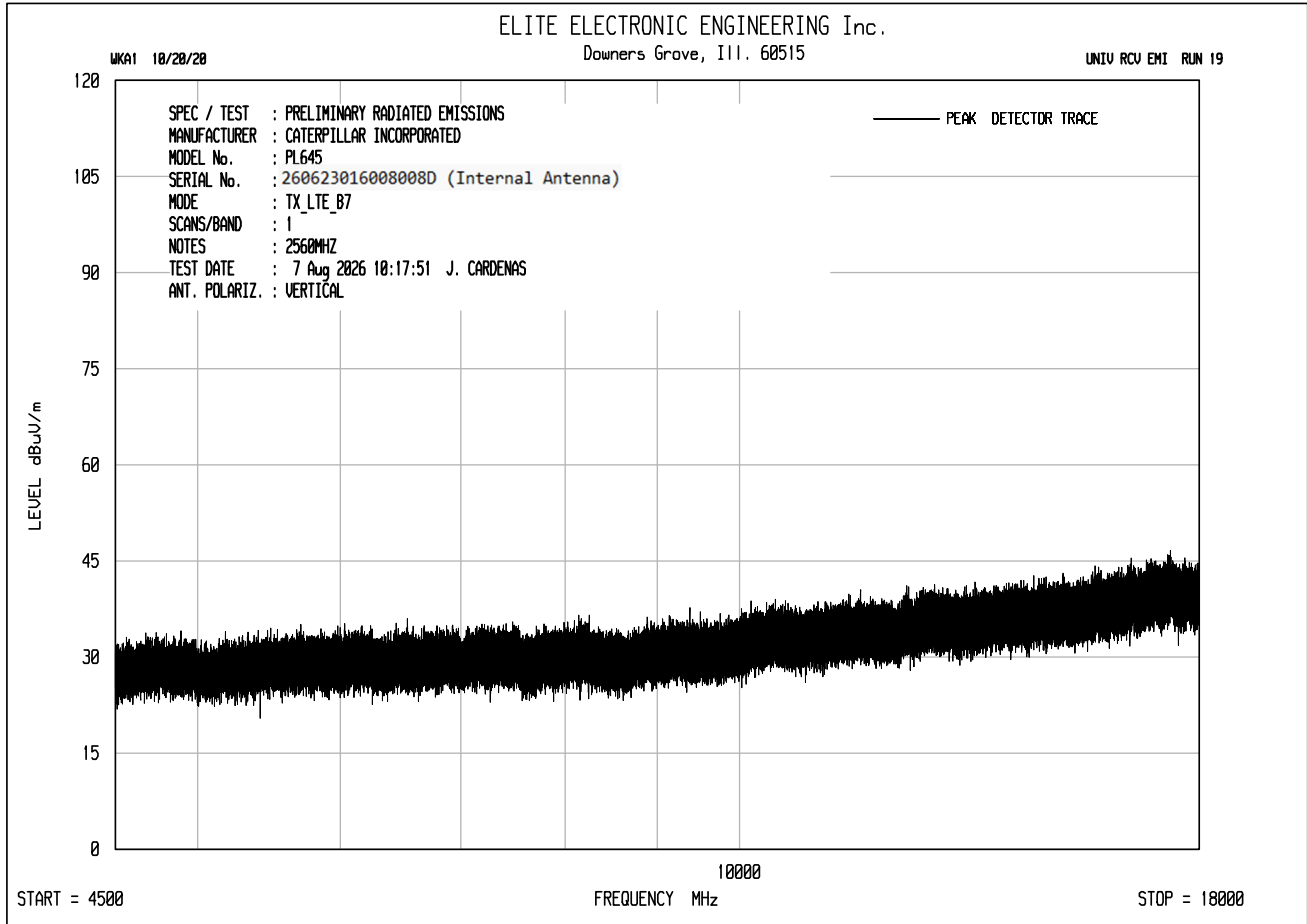


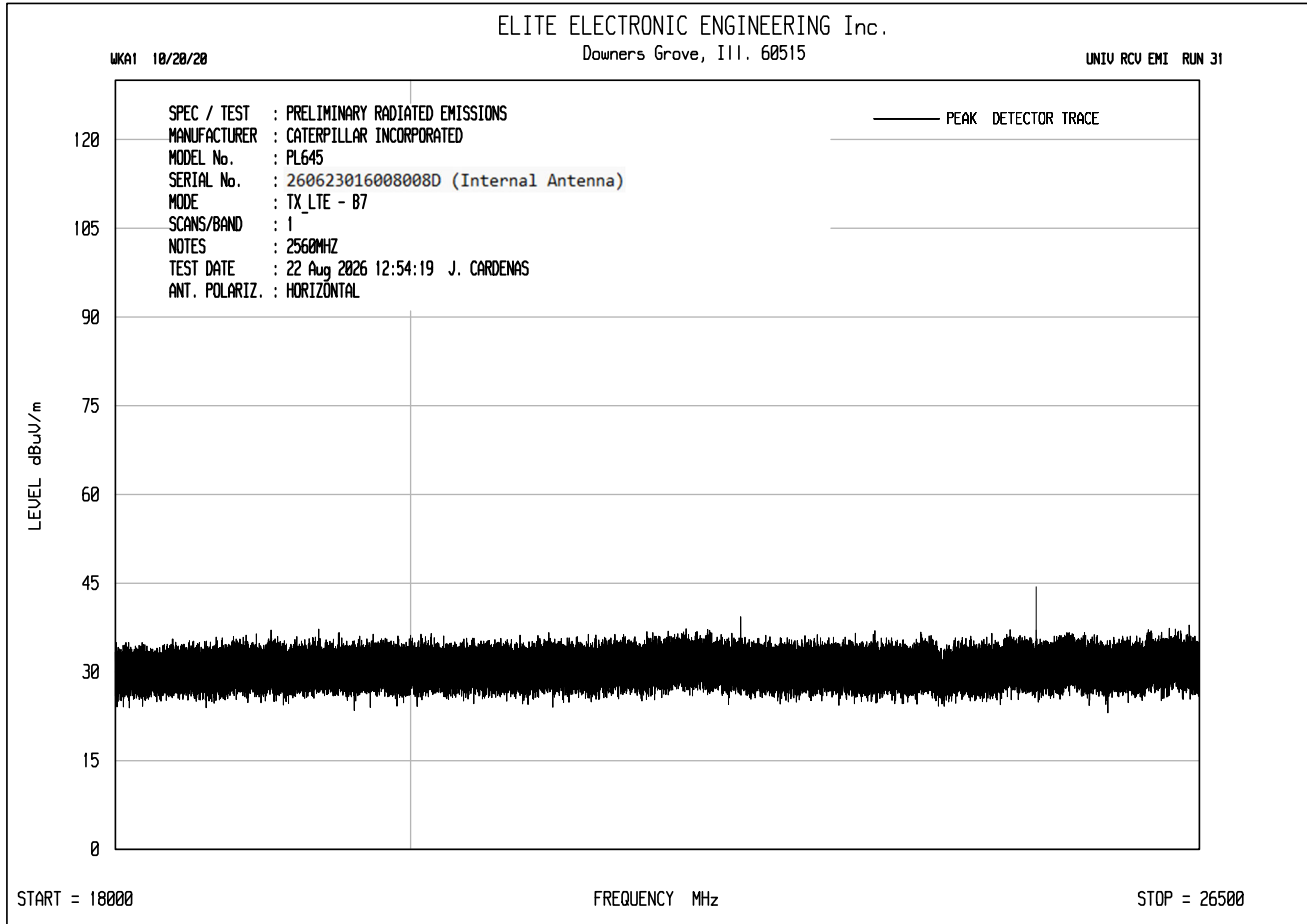


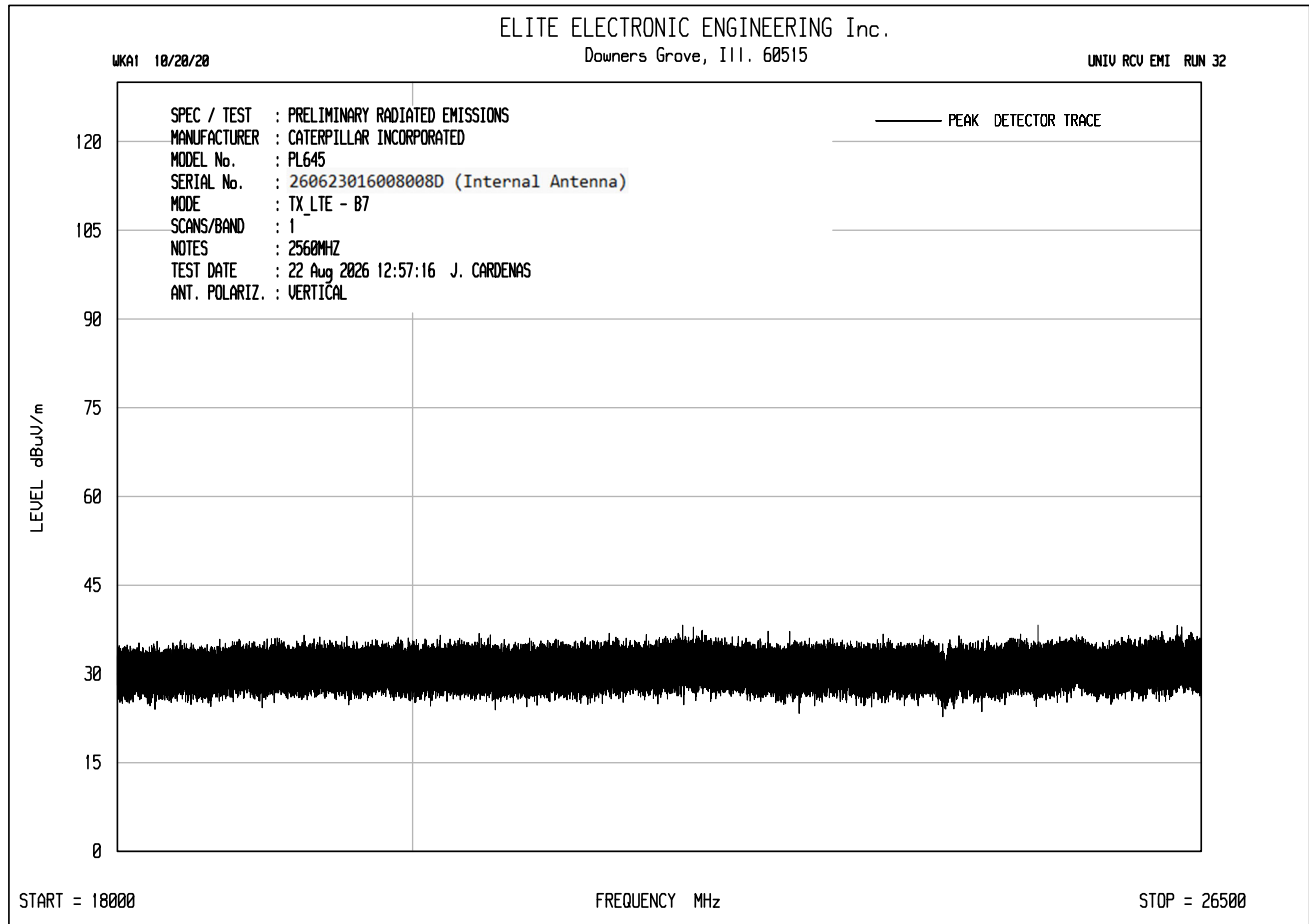






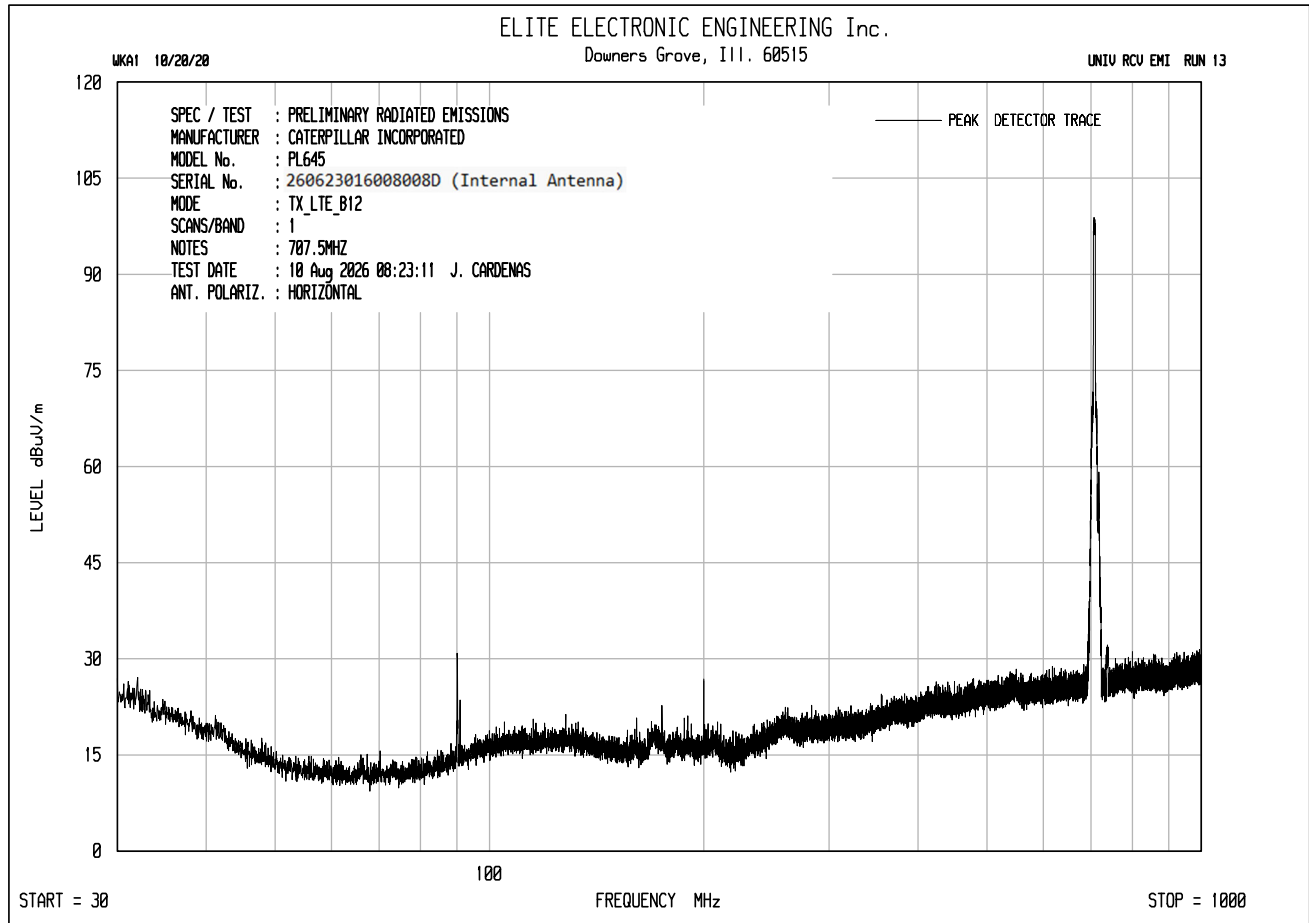


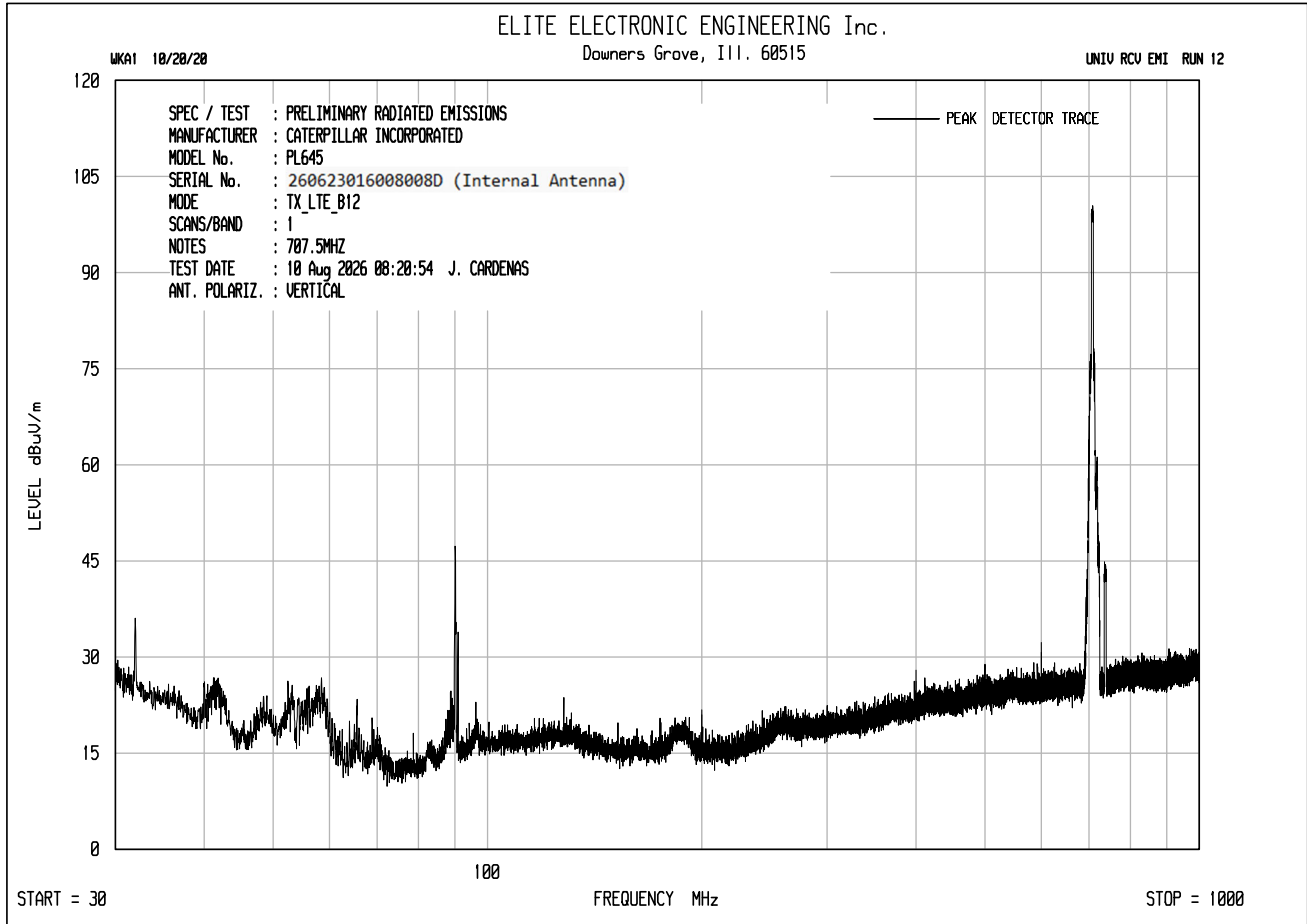


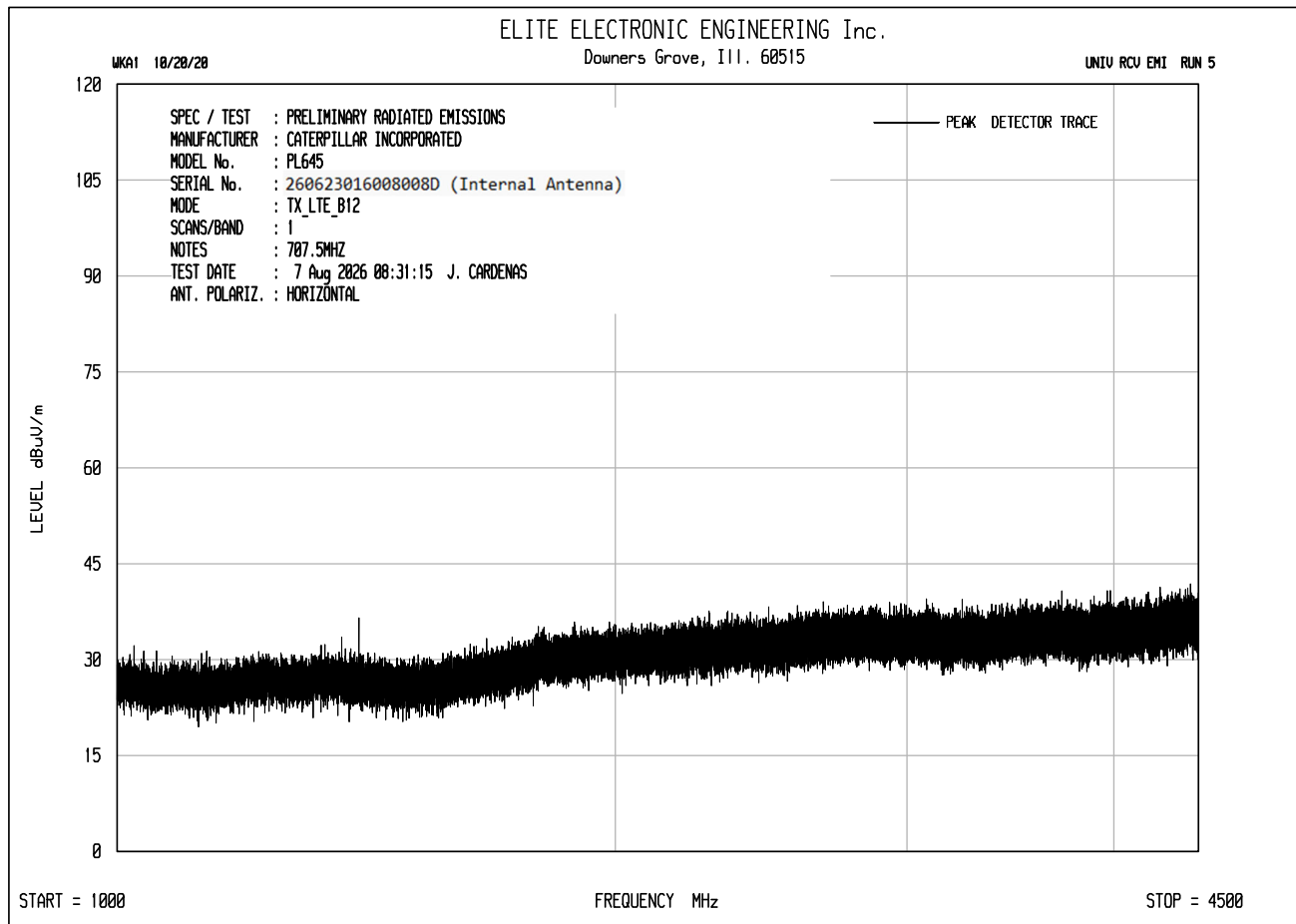


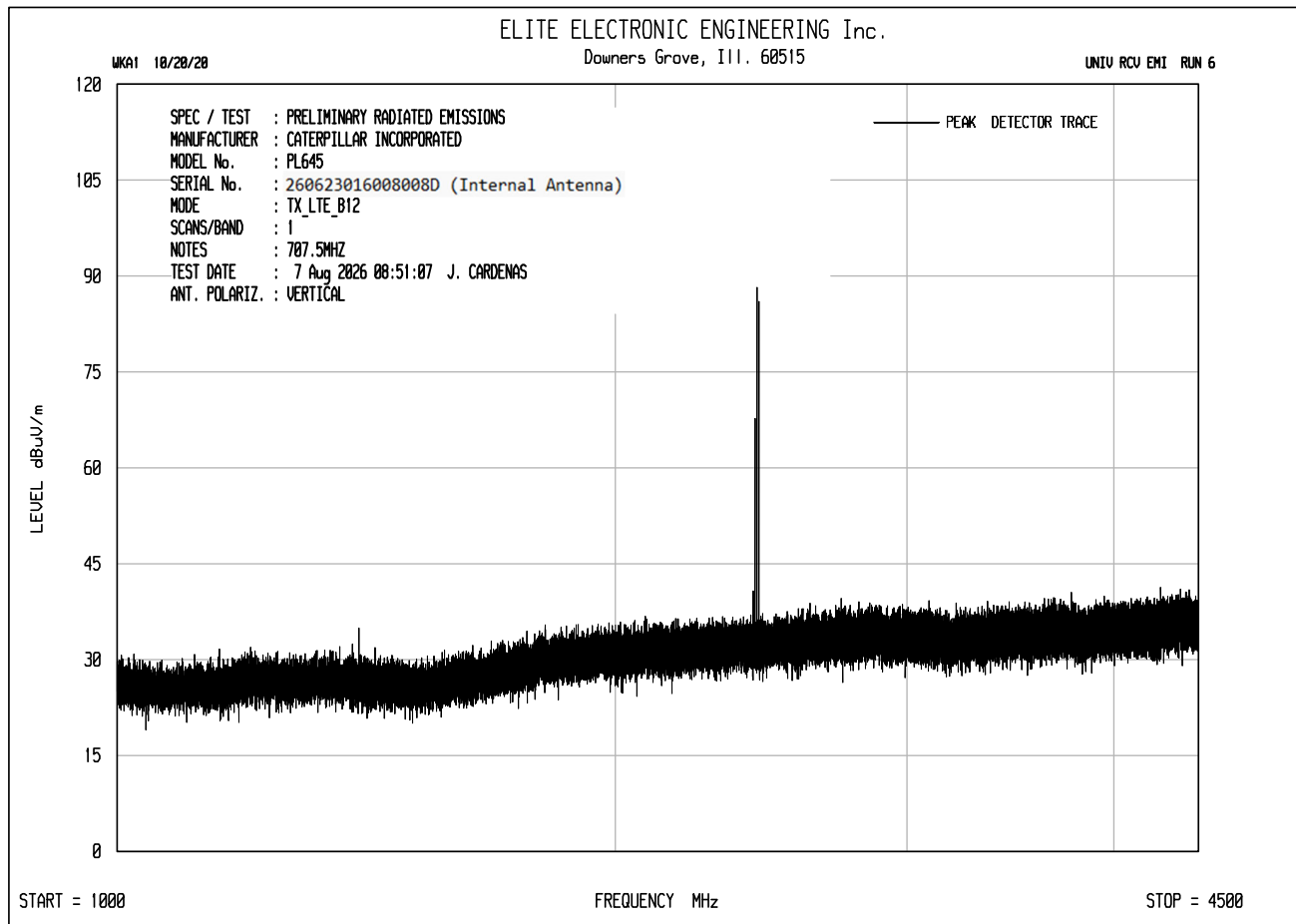
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
5120.00	H	48.5	Ambient	-50.6	5.1	5.0	-50.5	72.3	34.8
5120.00	V	48.9	Ambient	-49.6	5.1	5.0	-49.5	71.3	34.8

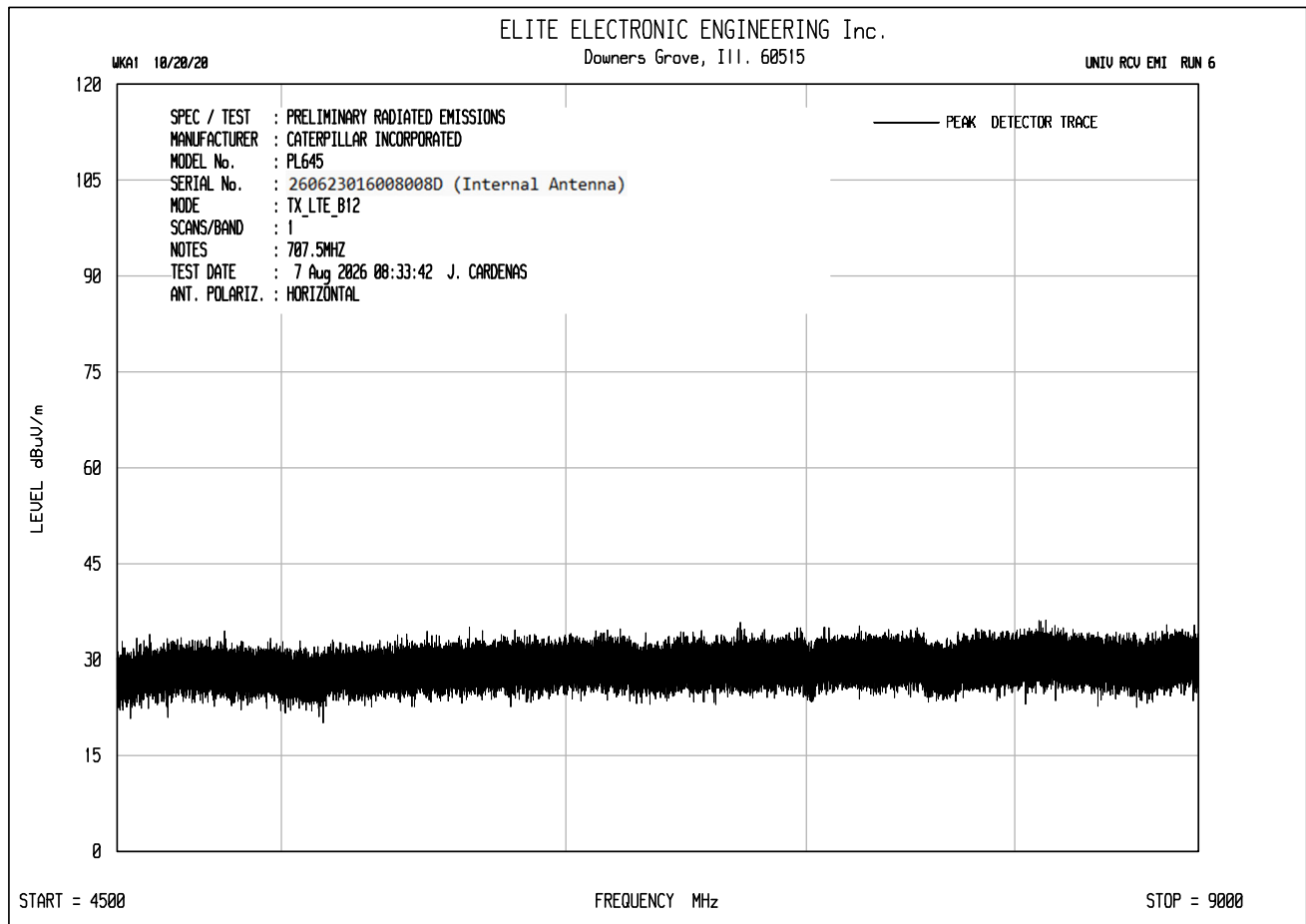
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 12 – 707.5MHz
Notes	None

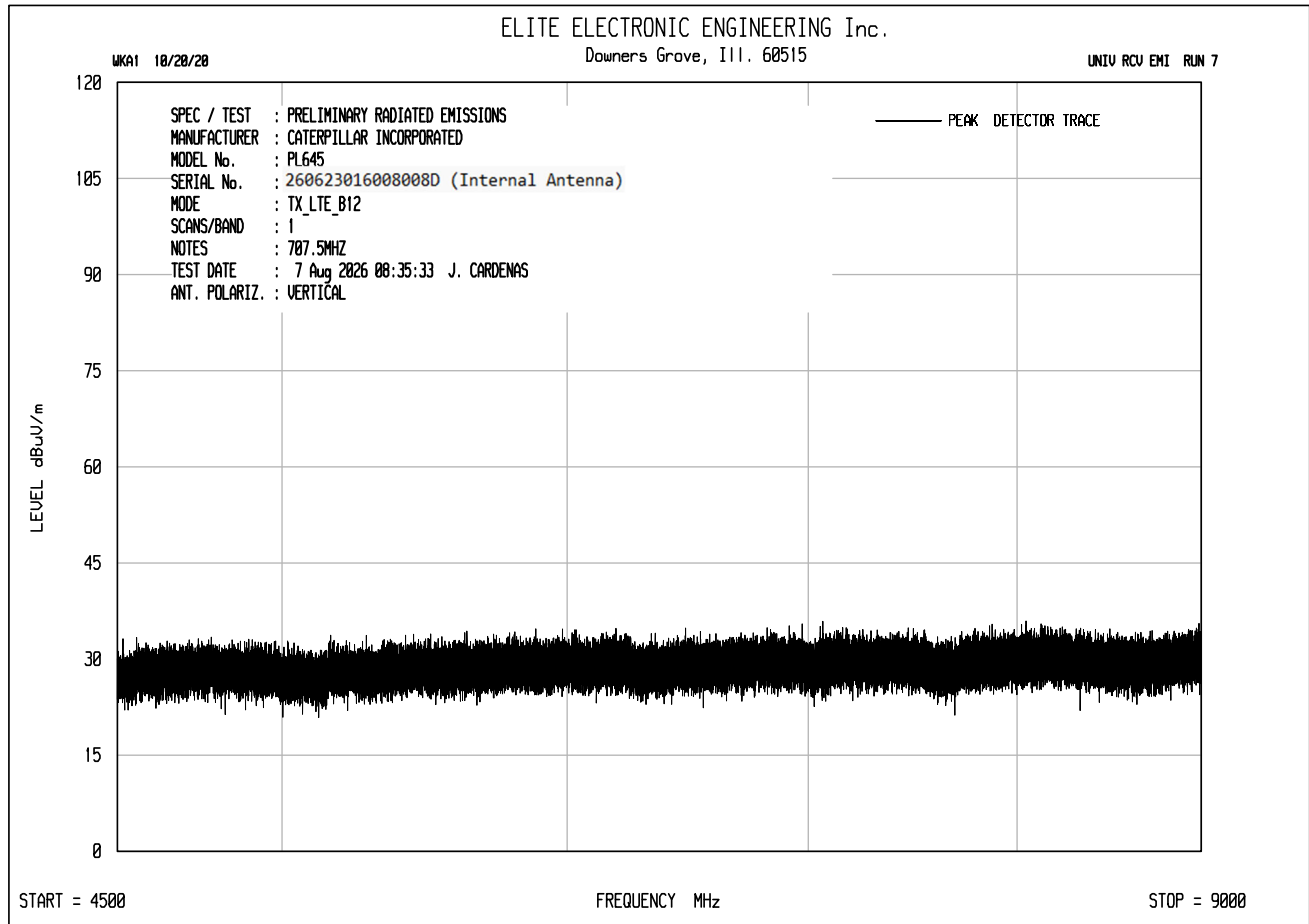






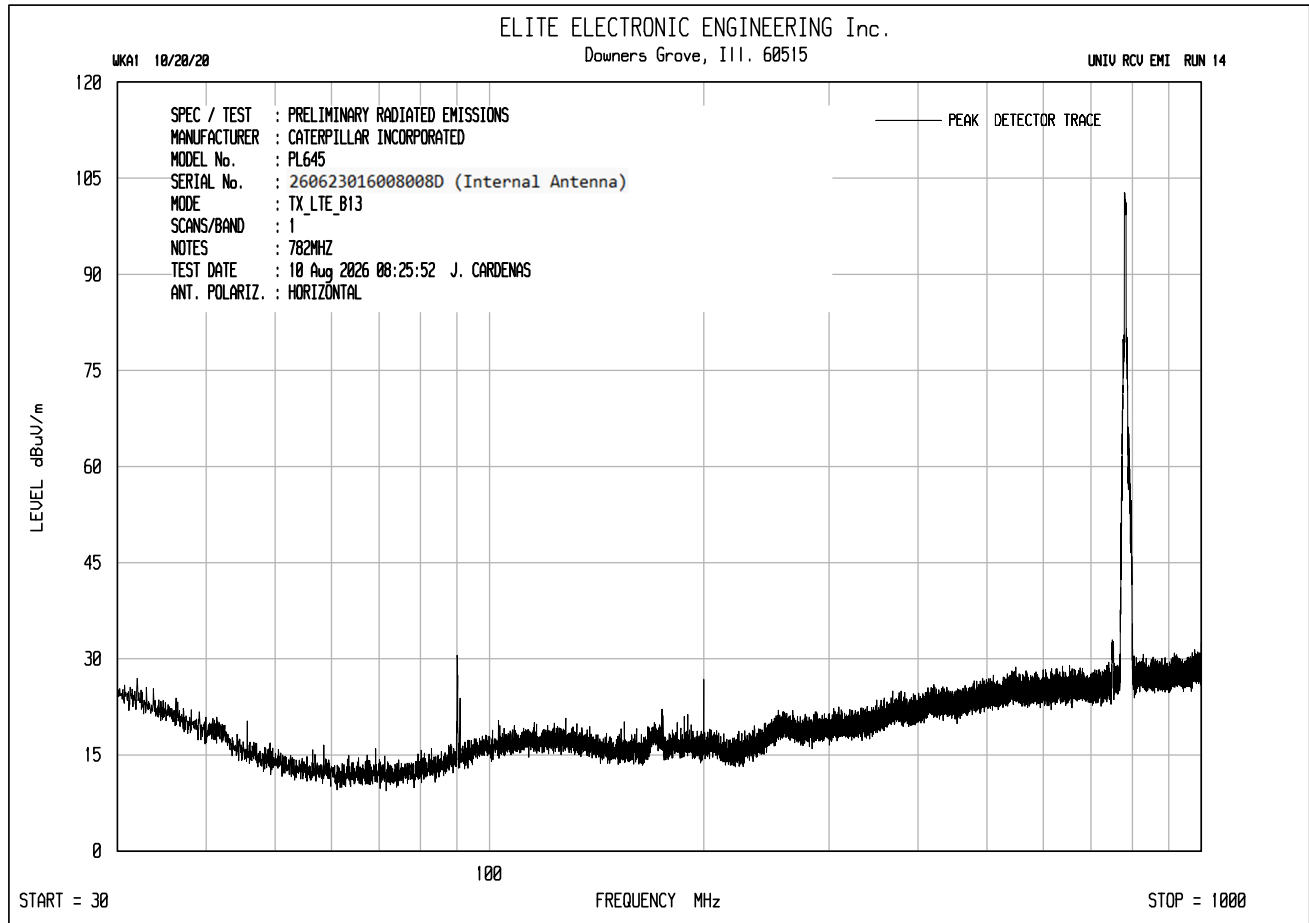


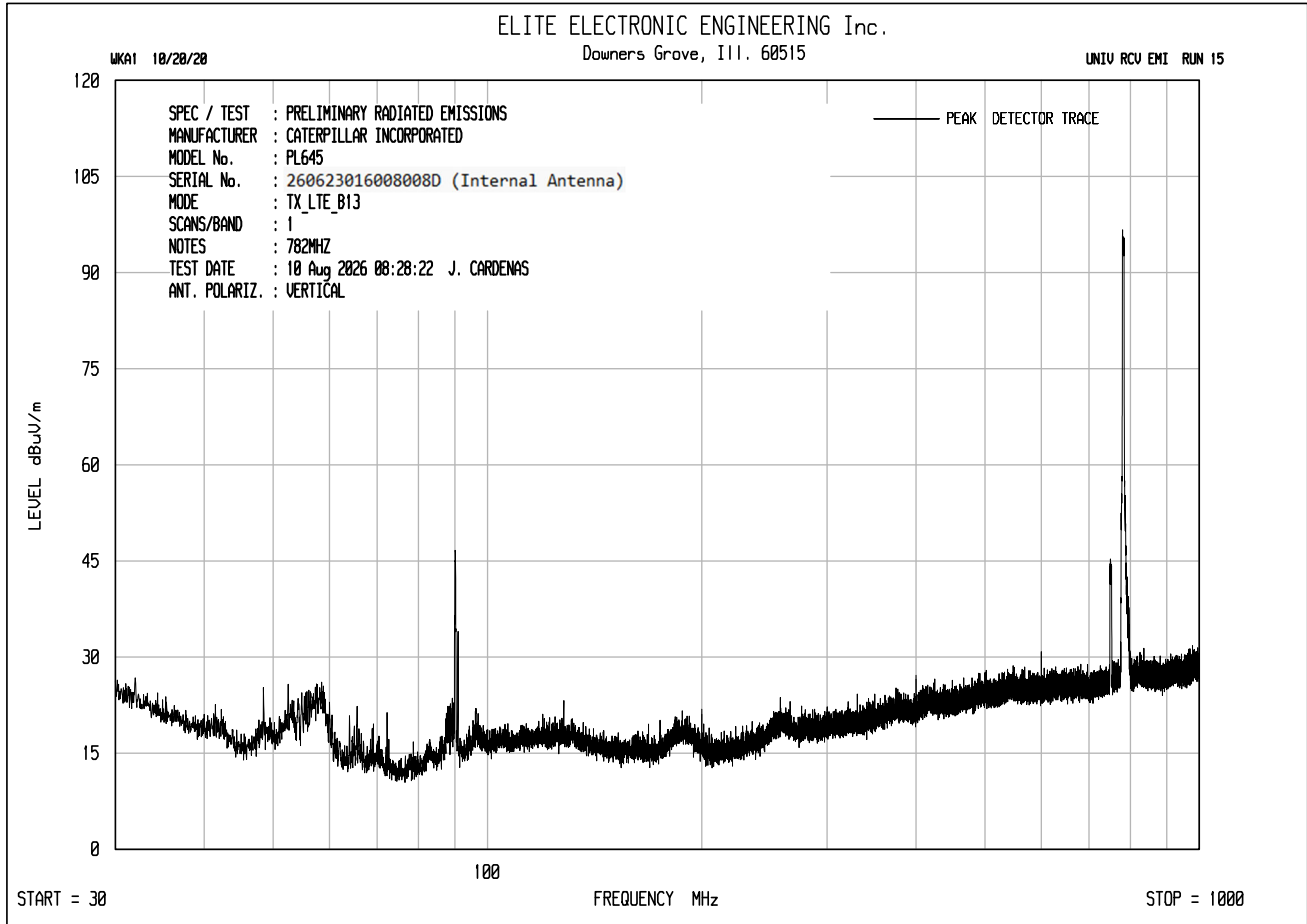


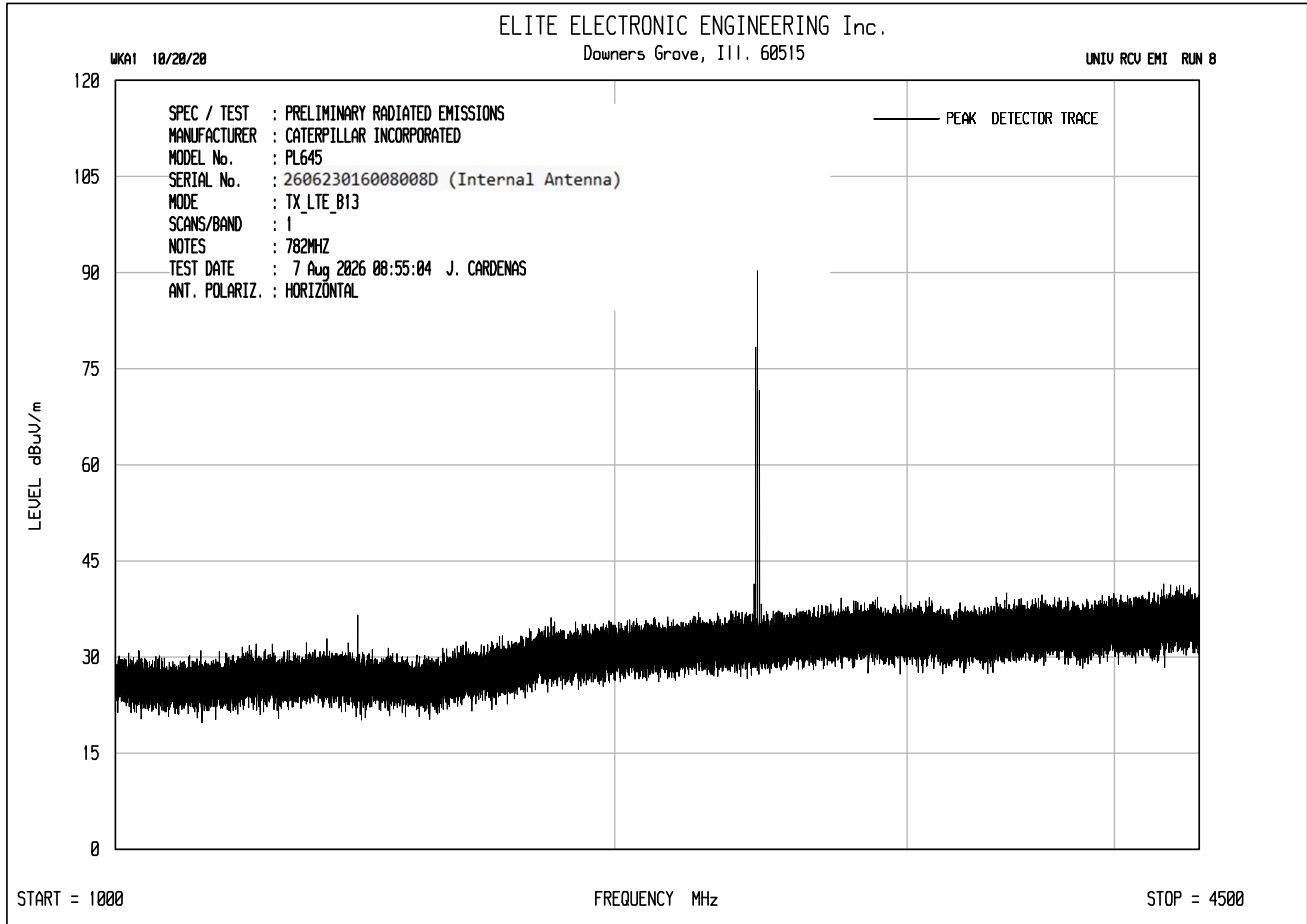


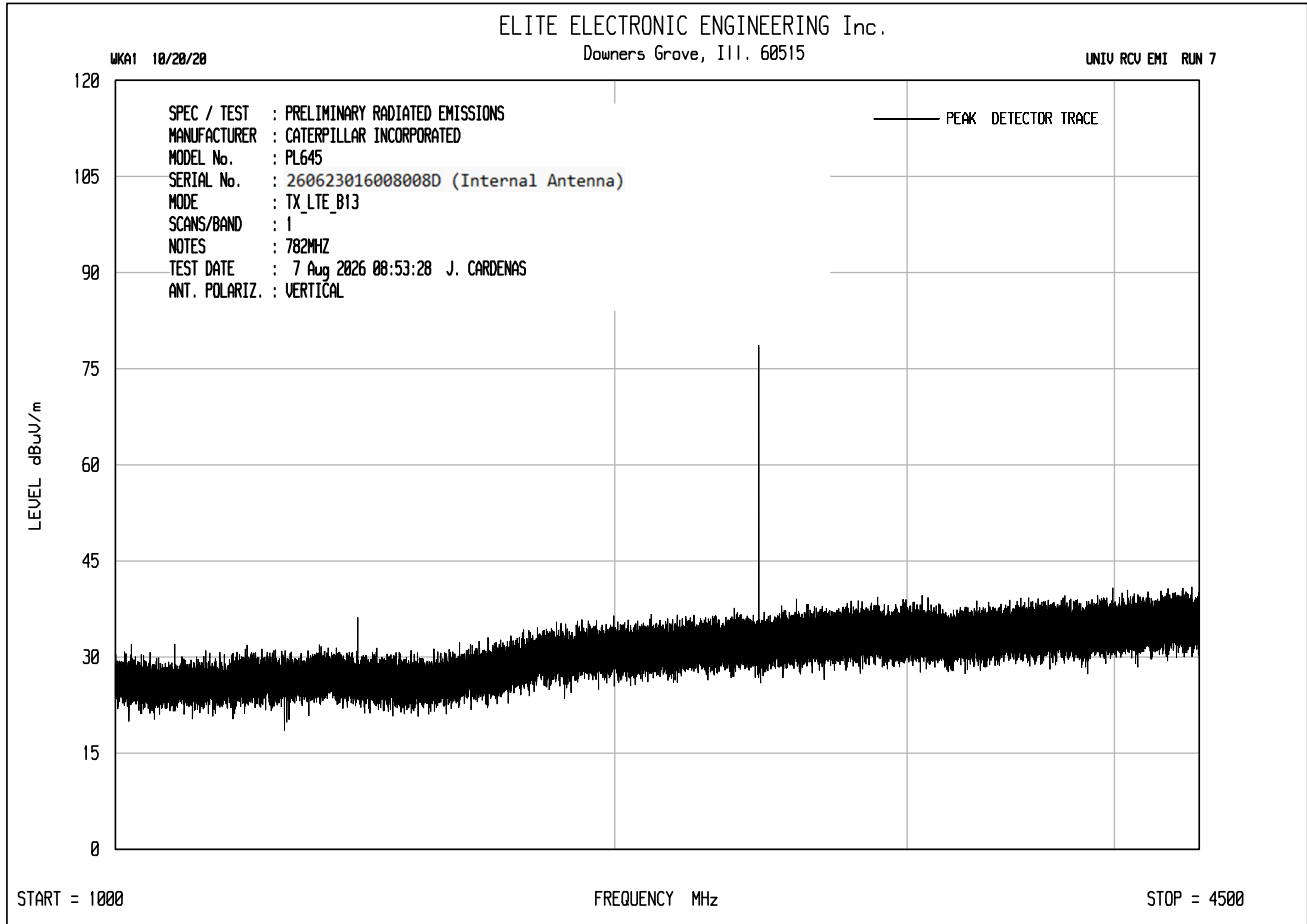
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
1415.00	H	26.4	Ambient	-42.2	1.6	2.6	-43.2	66.9	36.7
1415.00	V	26.5	Ambient	-40.0	1.6	2.6	-41.0	64.7	36.7
2122.50	H	50.3	Ambient	-54.2	1.7	3.2	-55.7	79.4	36.7
2122.50	V	51.6	Ambient	-52.1	1.7	3.2	-53.6	77.3	36.7

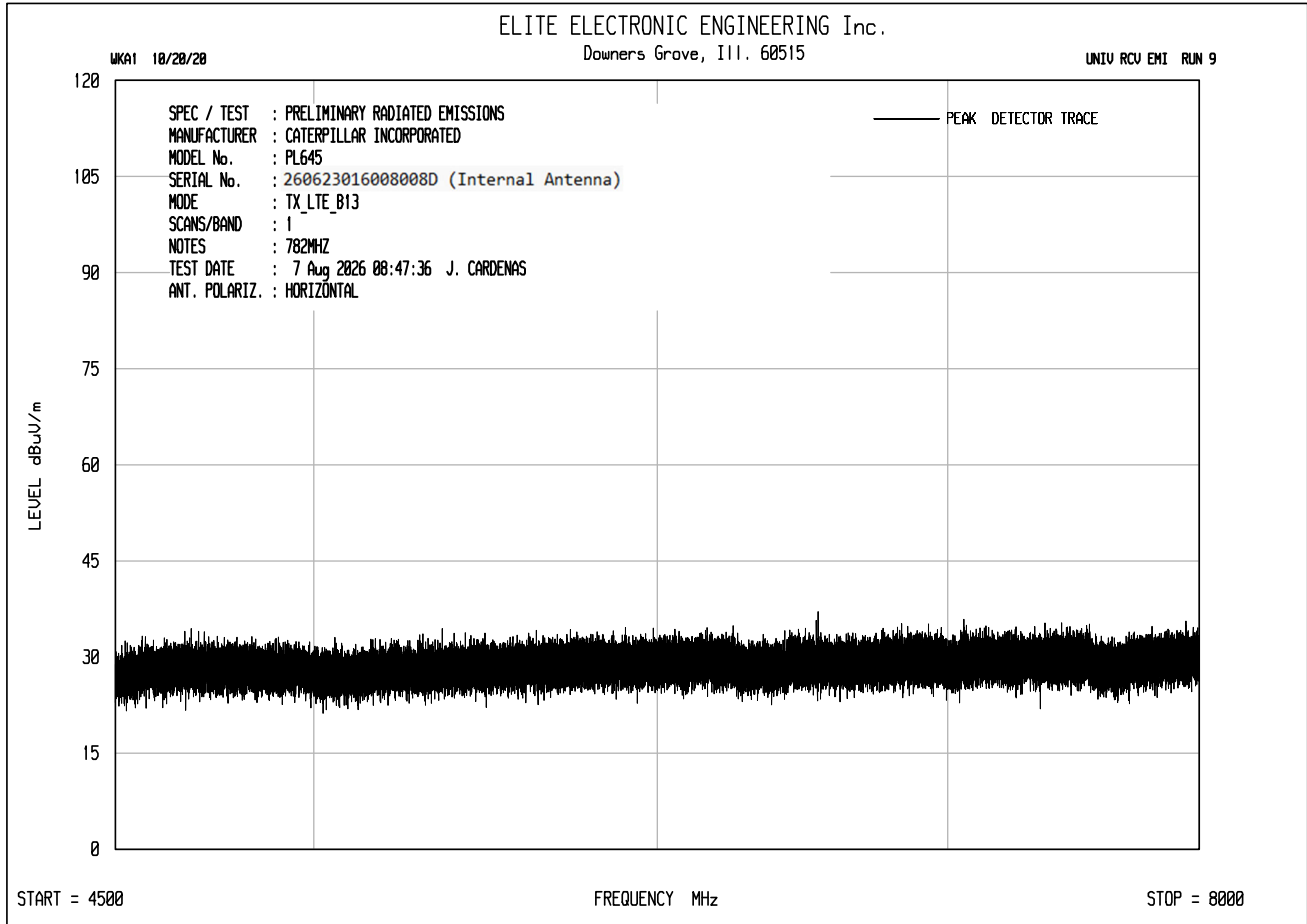
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE (E-UTRA)
Frequency Tested	Band 13 – 782MHz
Notes	None

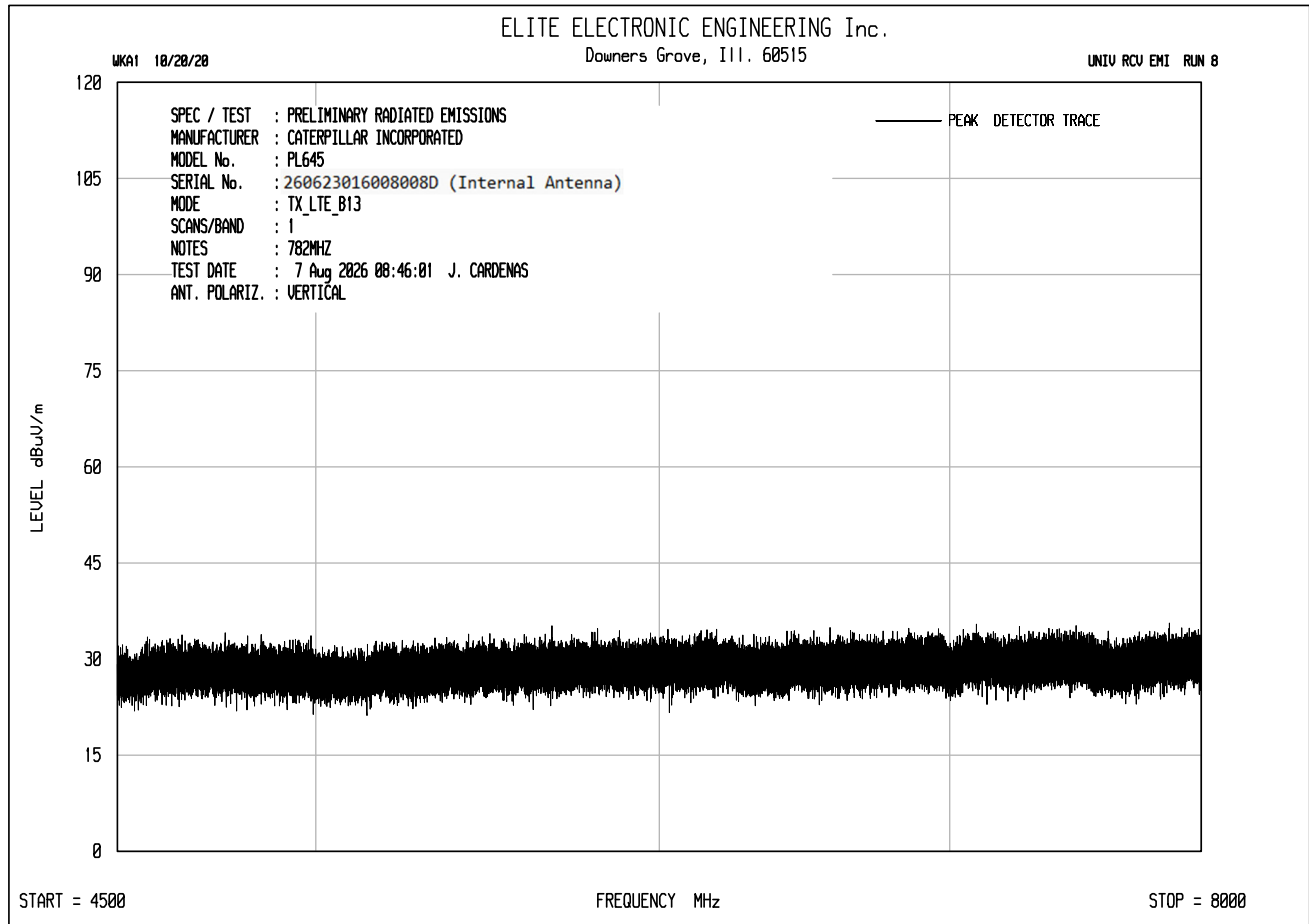






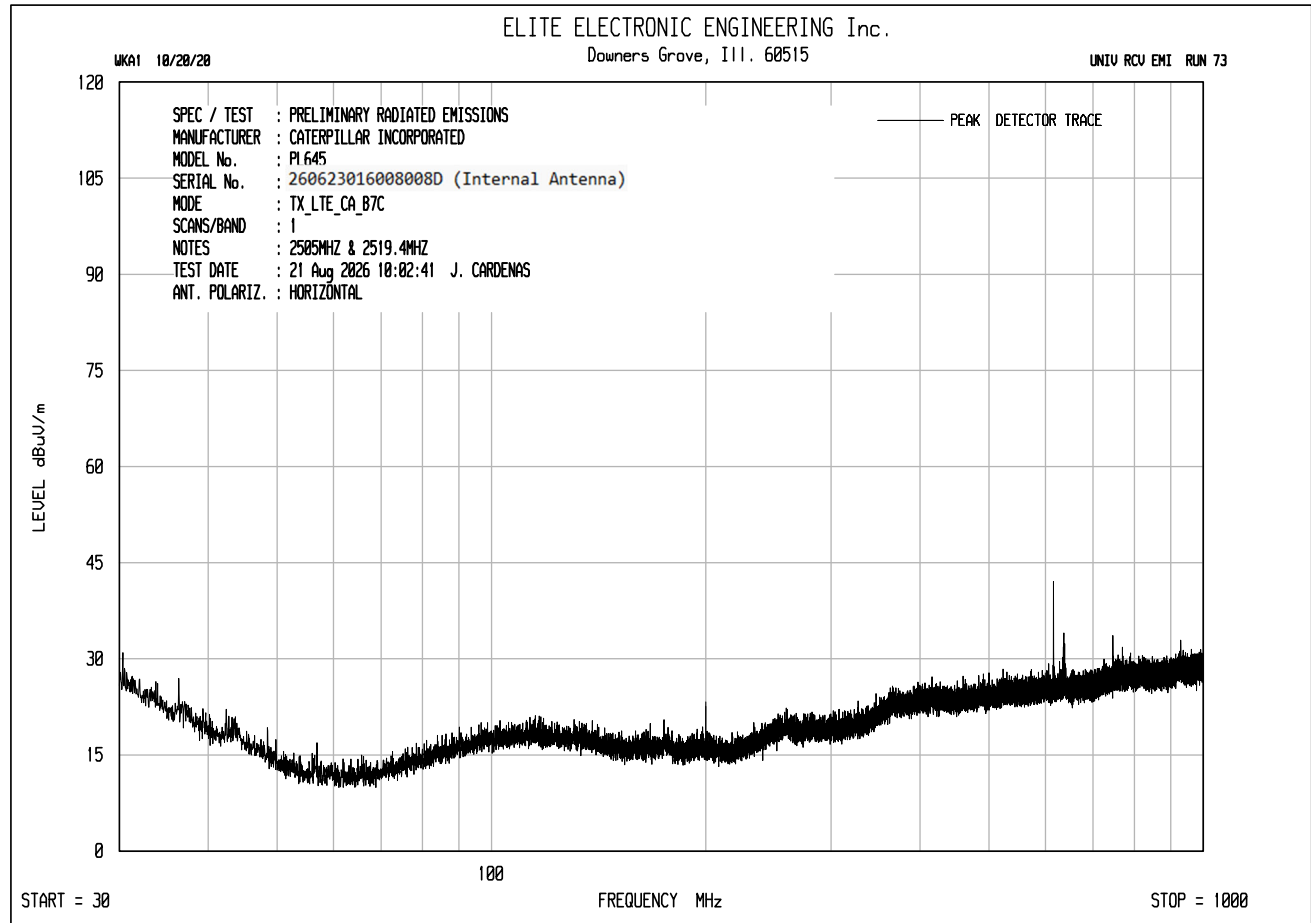


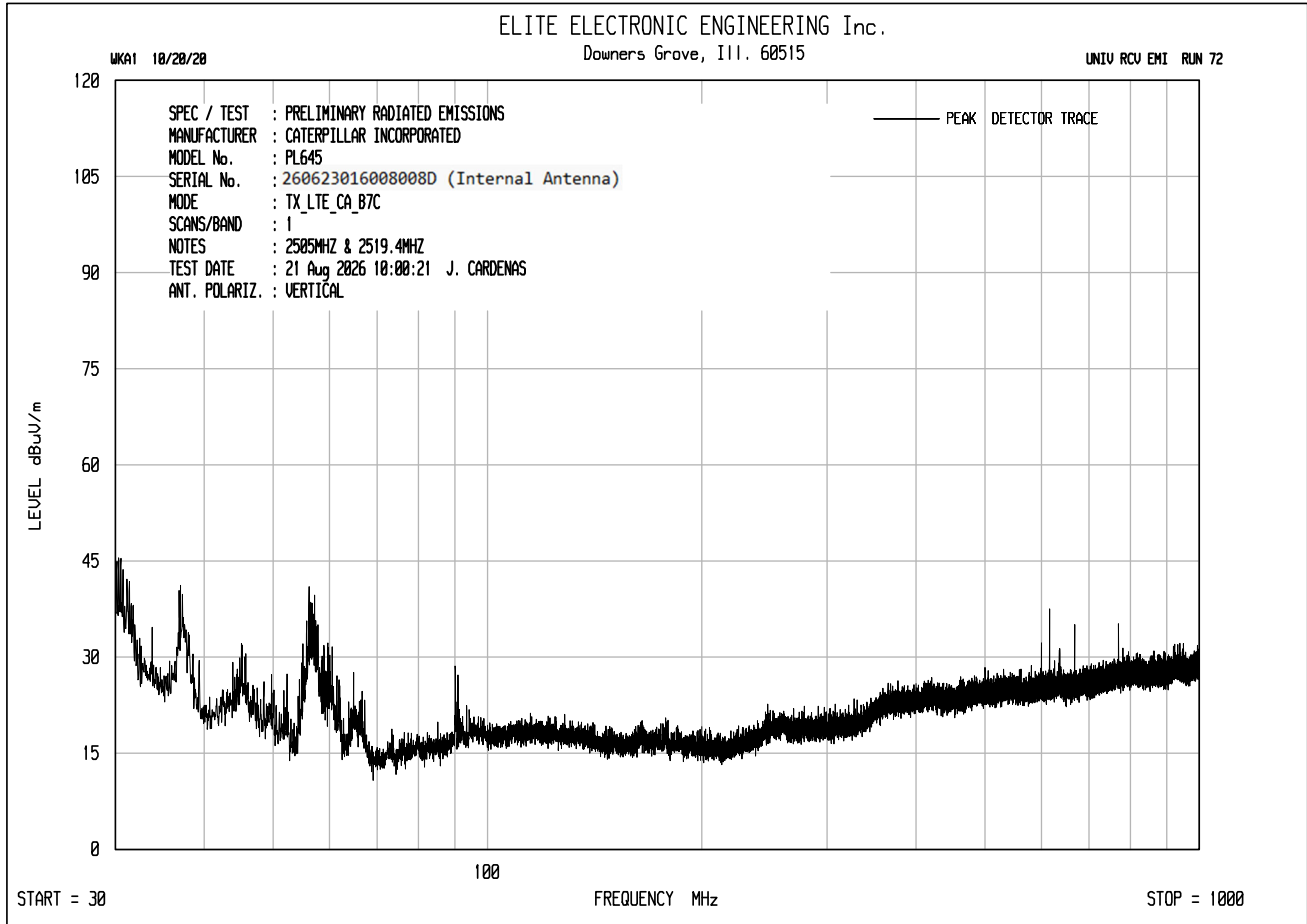


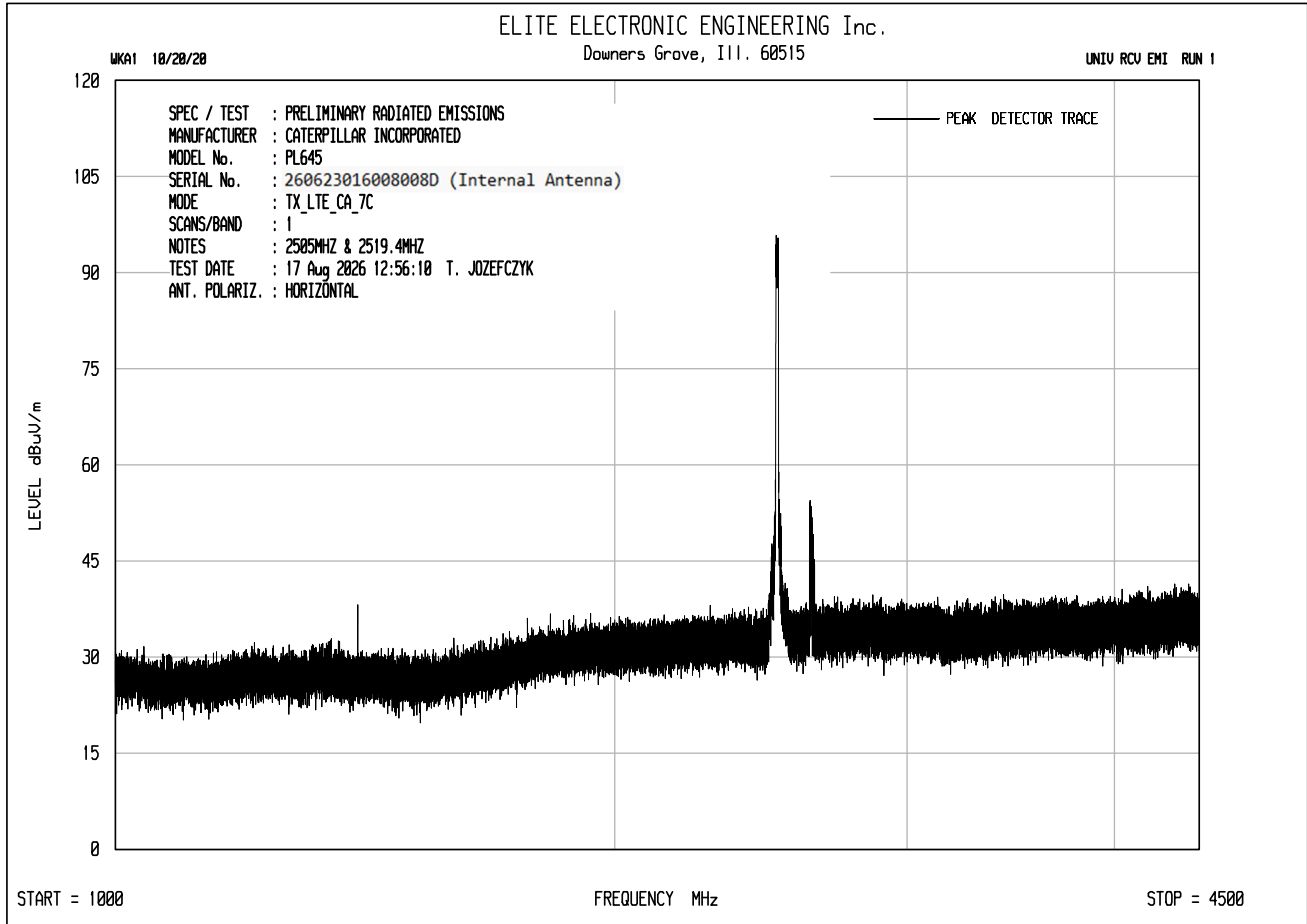


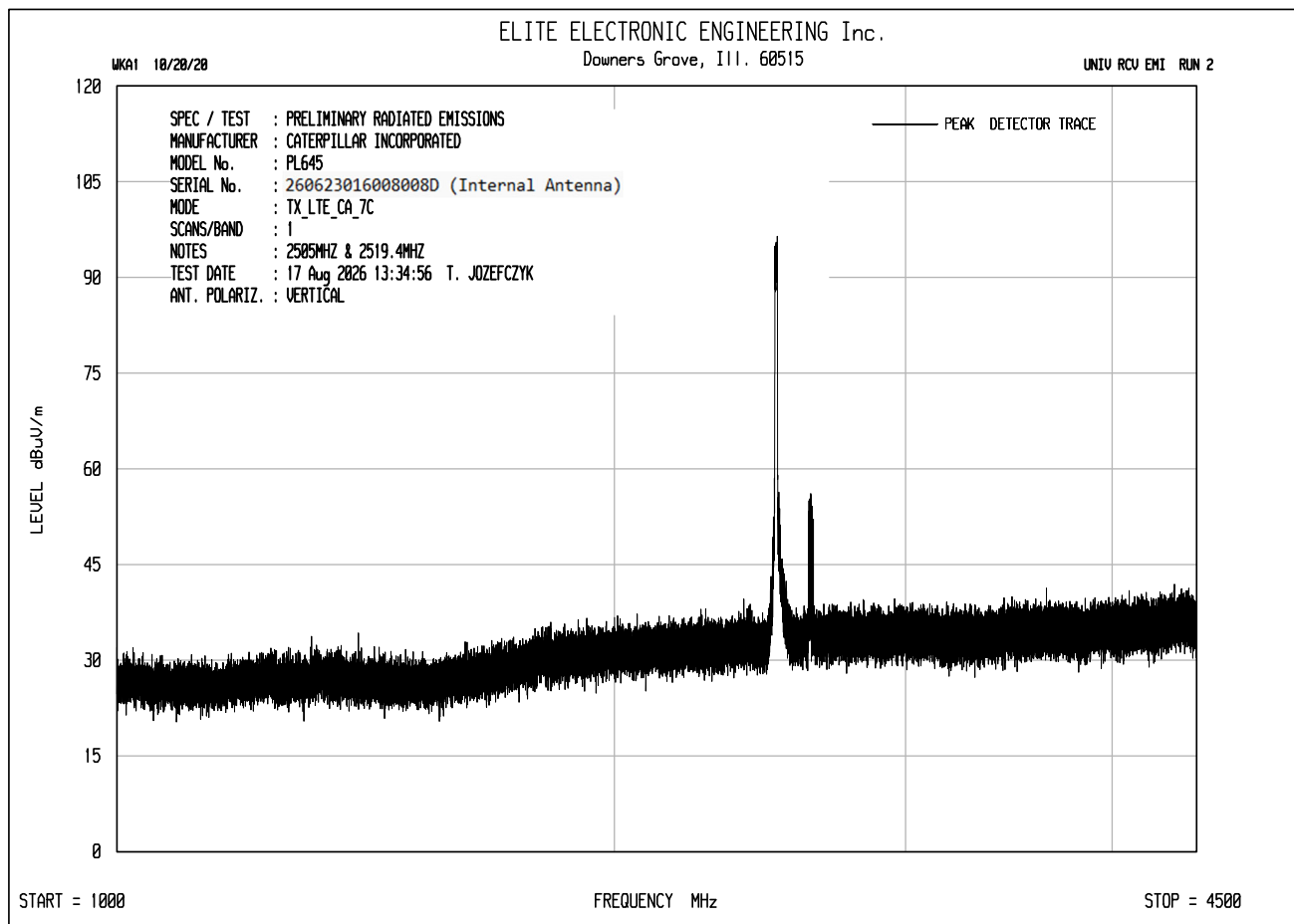
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
1564.00	H	26.4	Ambient	-43.2	2.7	2.7	-43.2	66.8	36.7
1564.00	V	26.4	Ambient	-40.5	2.7	2.7	-40.6	64.2	36.7
2346.00	H	45.2	Ambient	-61.0	3.0	3.4	-61.4	85.1	36.7
2346.00	V	46.8	Ambient	-58.3	3.0	3.4	-58.7	82.3	36.7

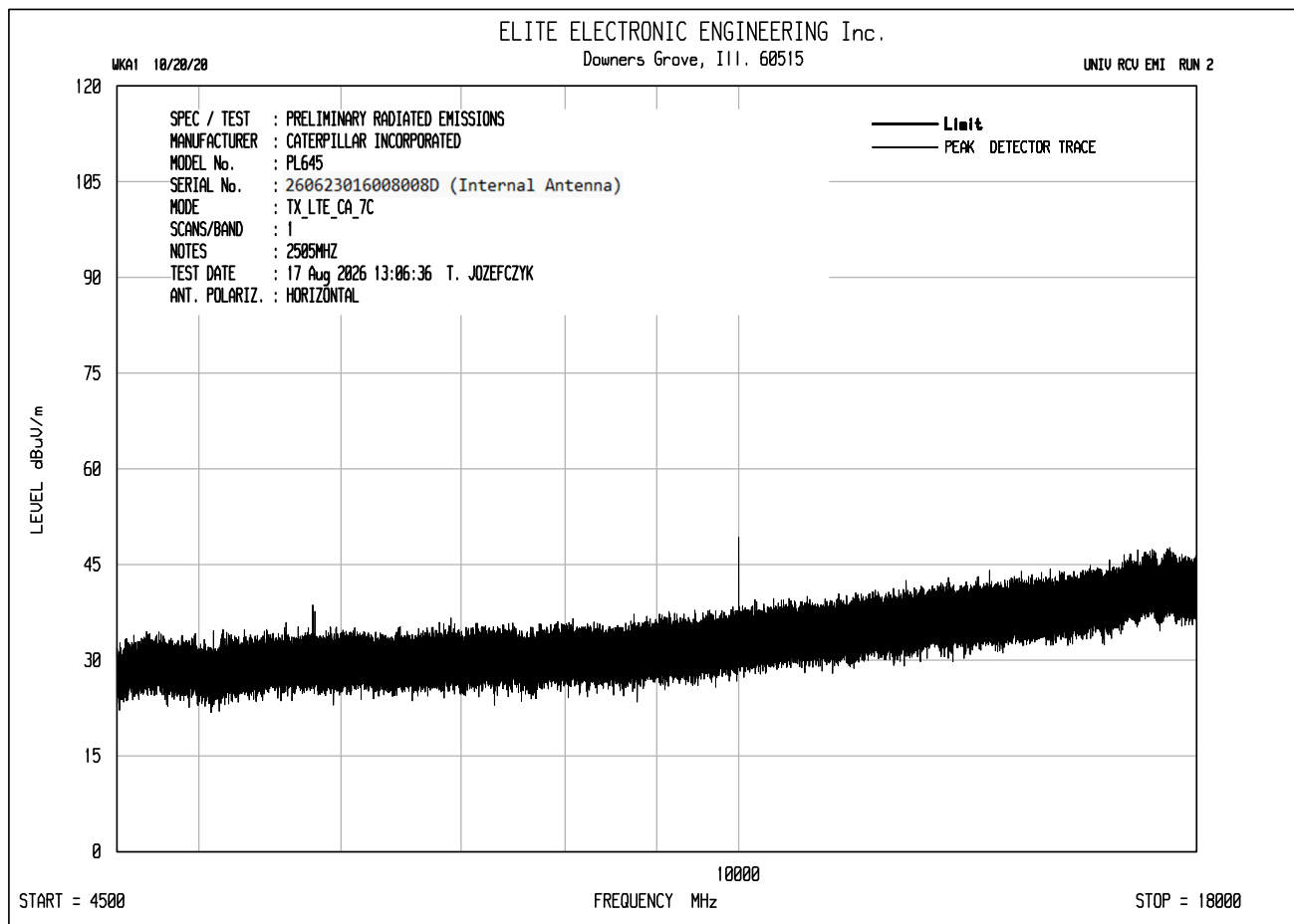
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE CA
Frequency Tested	Band 7 – 2505MHz
Notes	None

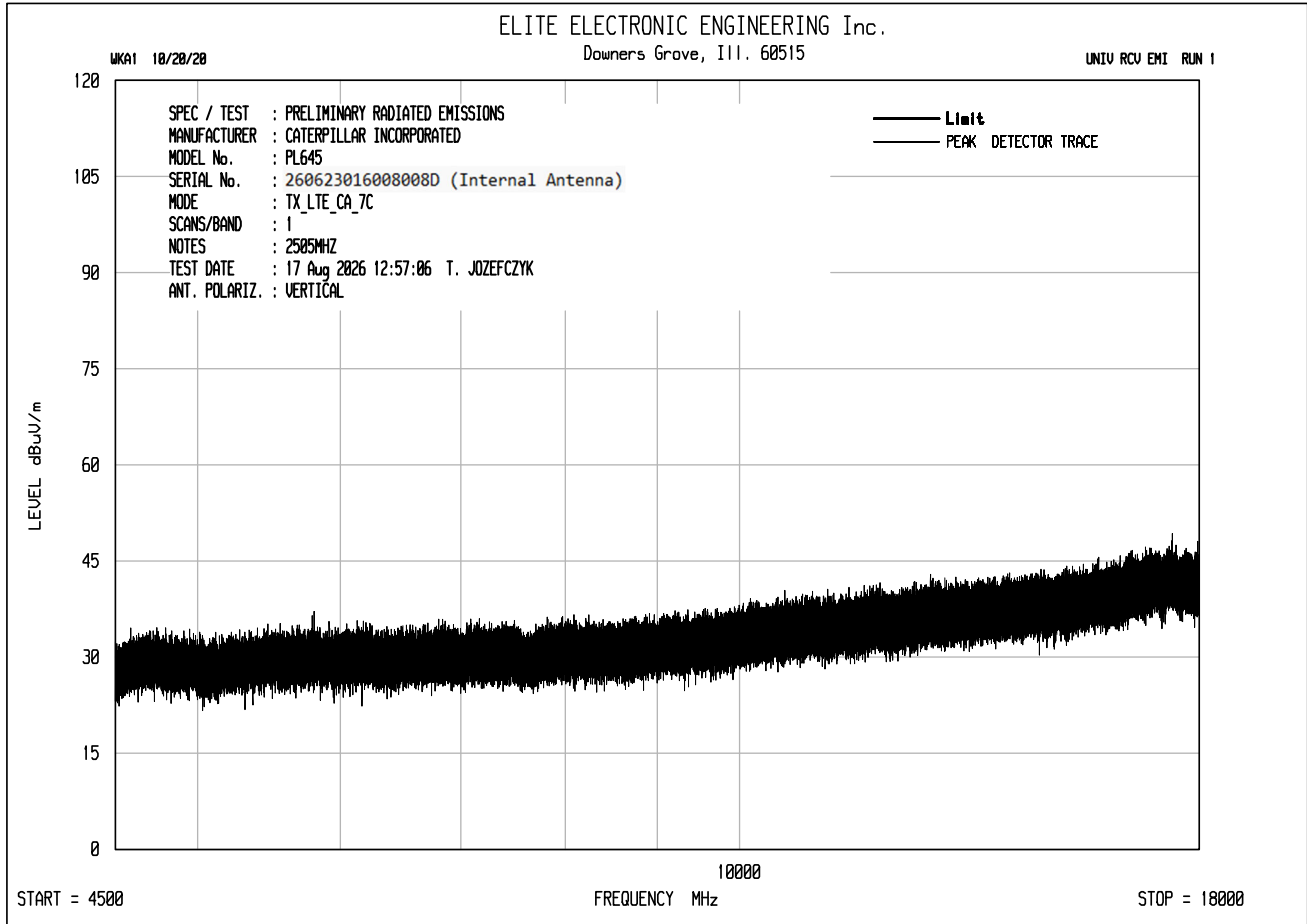


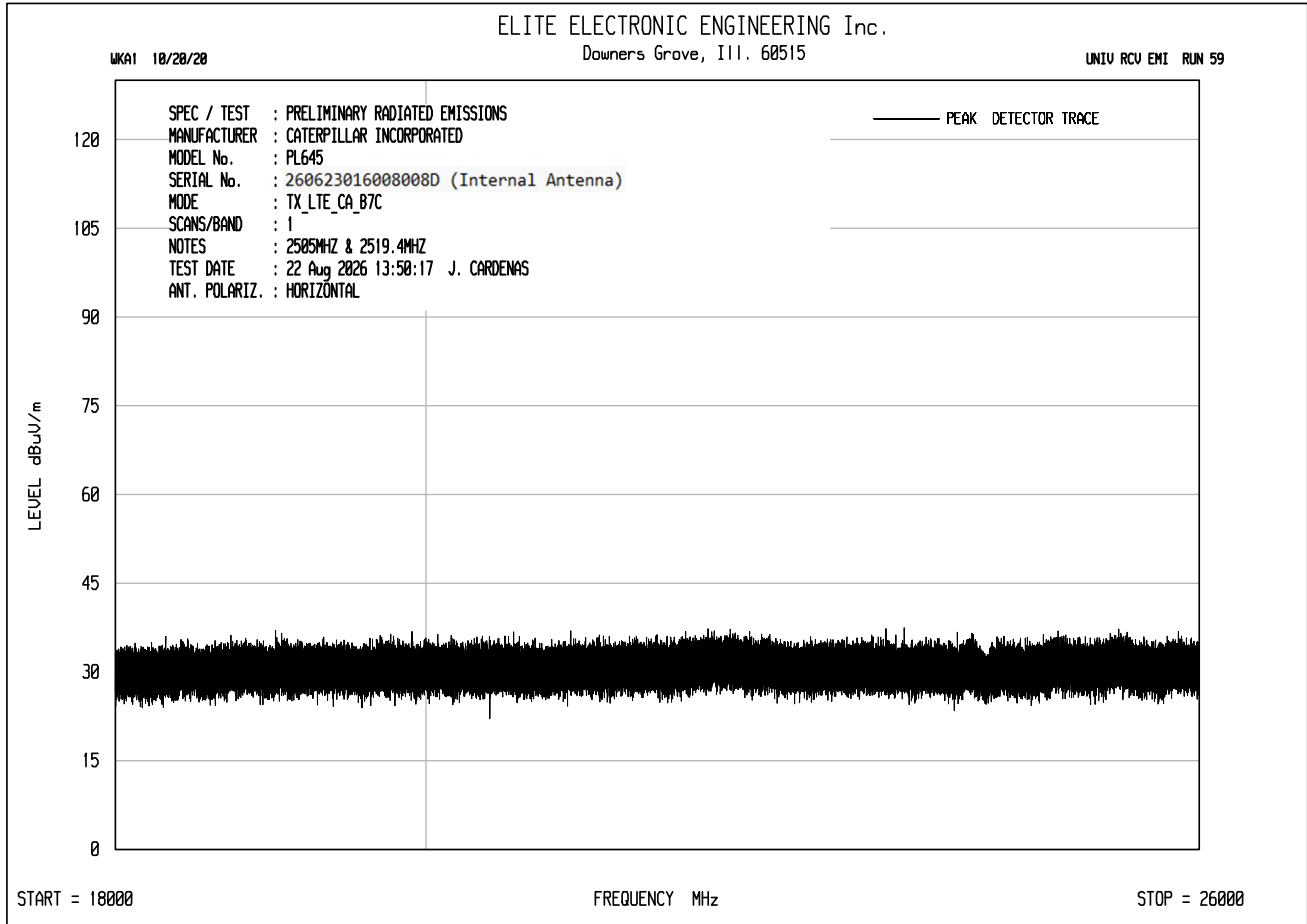


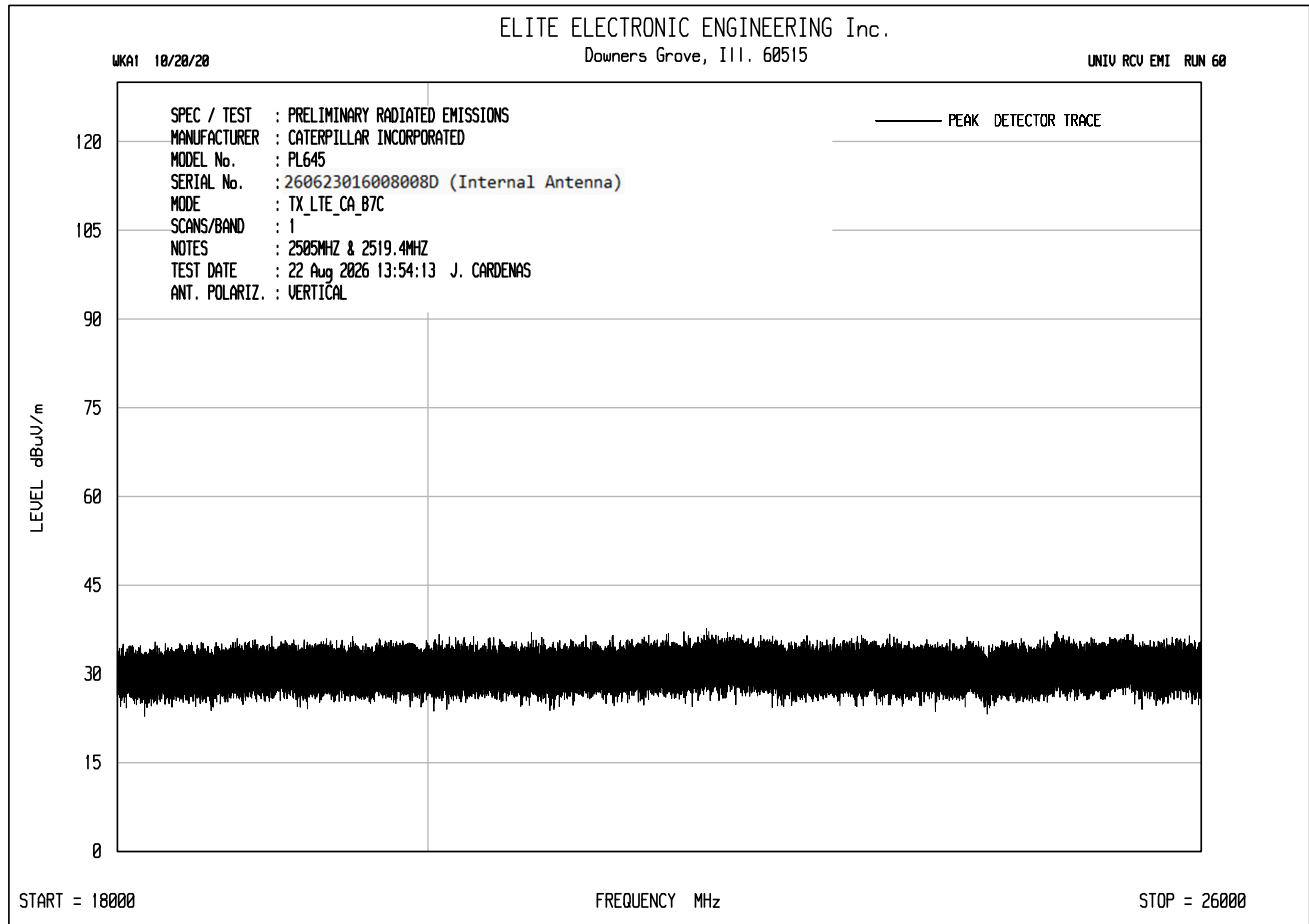






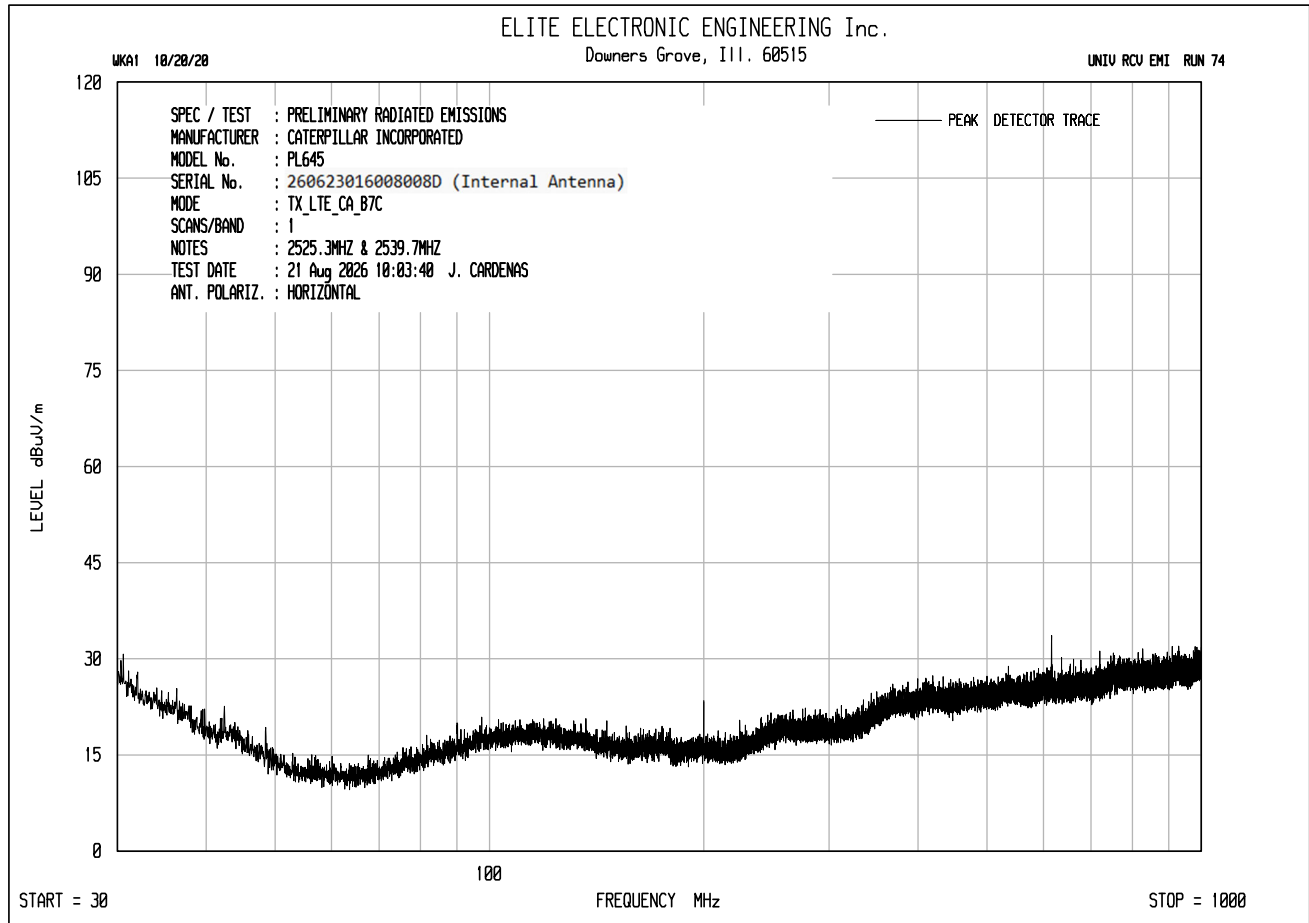


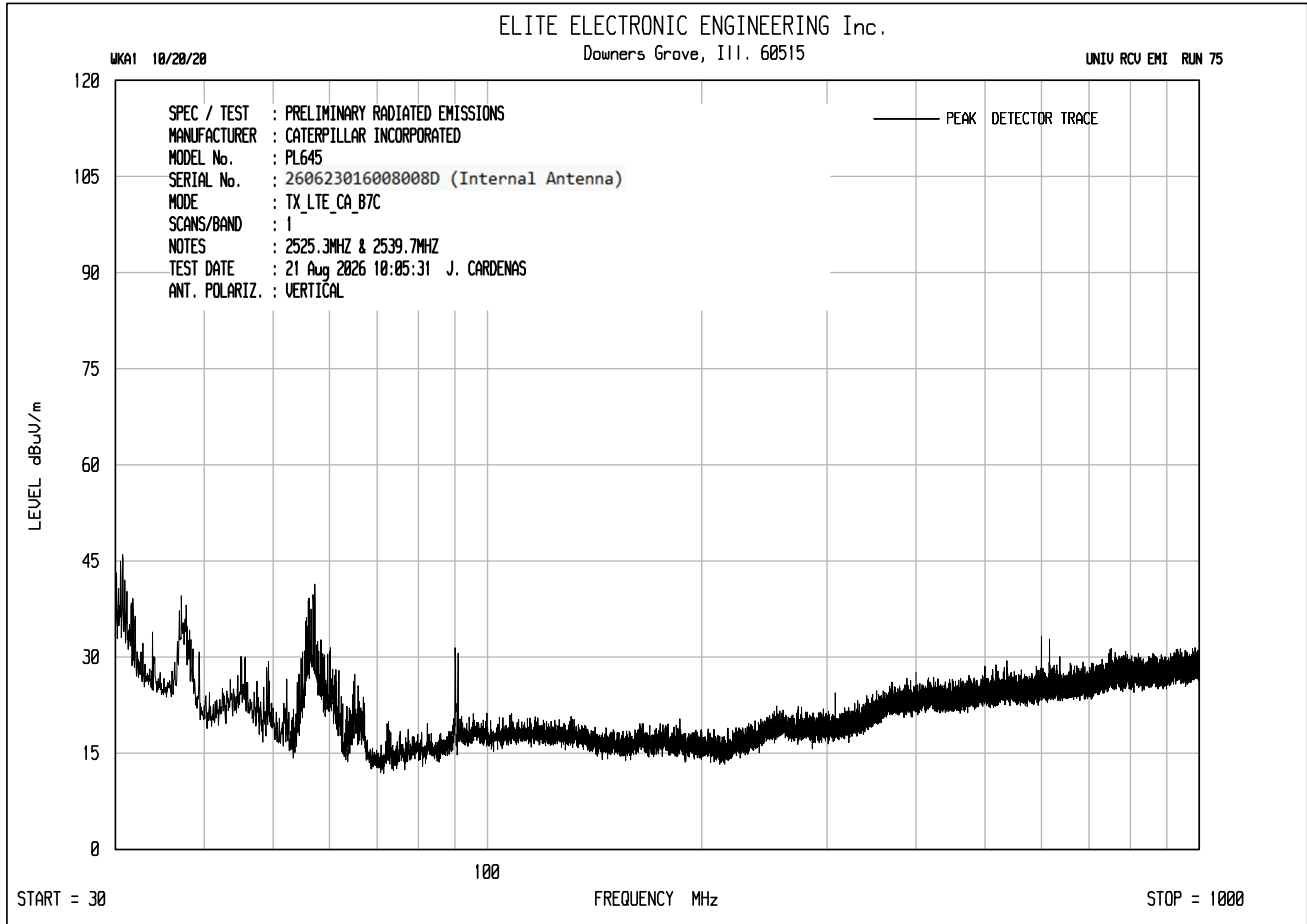


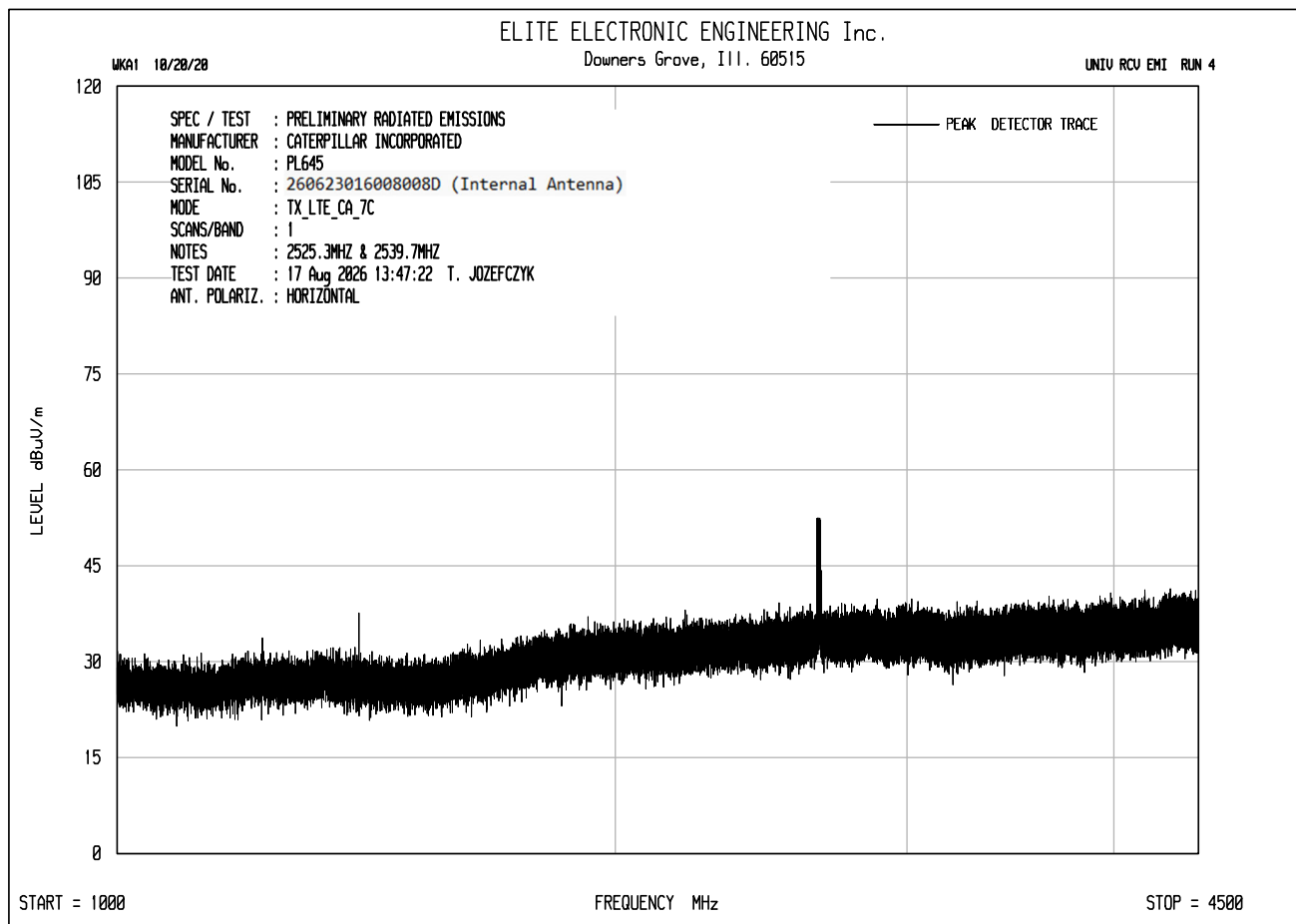


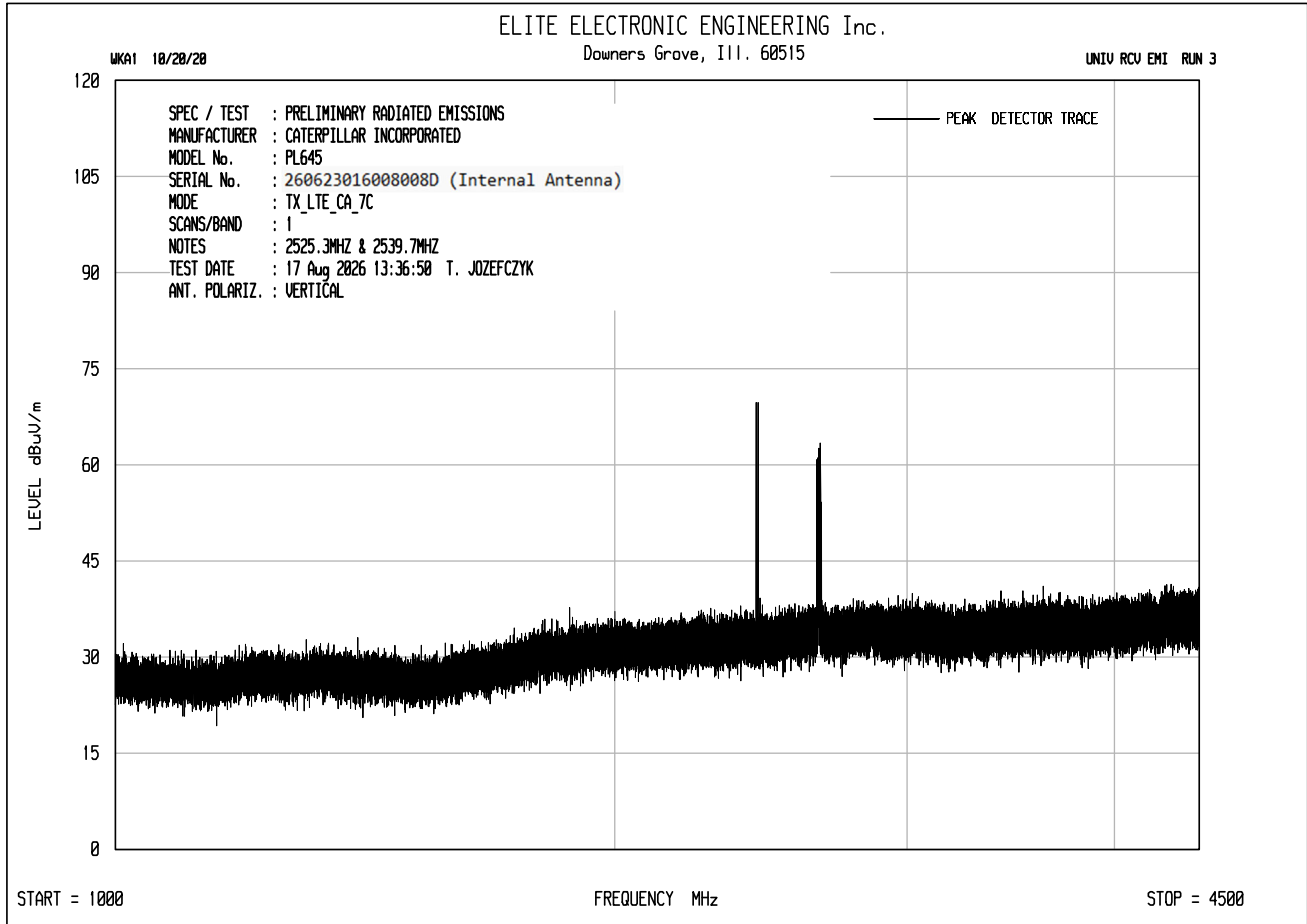
Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
5010.00	H	49.3	Ambient	-50.6	5.5	4.9	-50.1	73.1	36.0
5010.00	V	49.3	Ambient	-49.2	5.5	4.9	-48.7	71.7	36.0

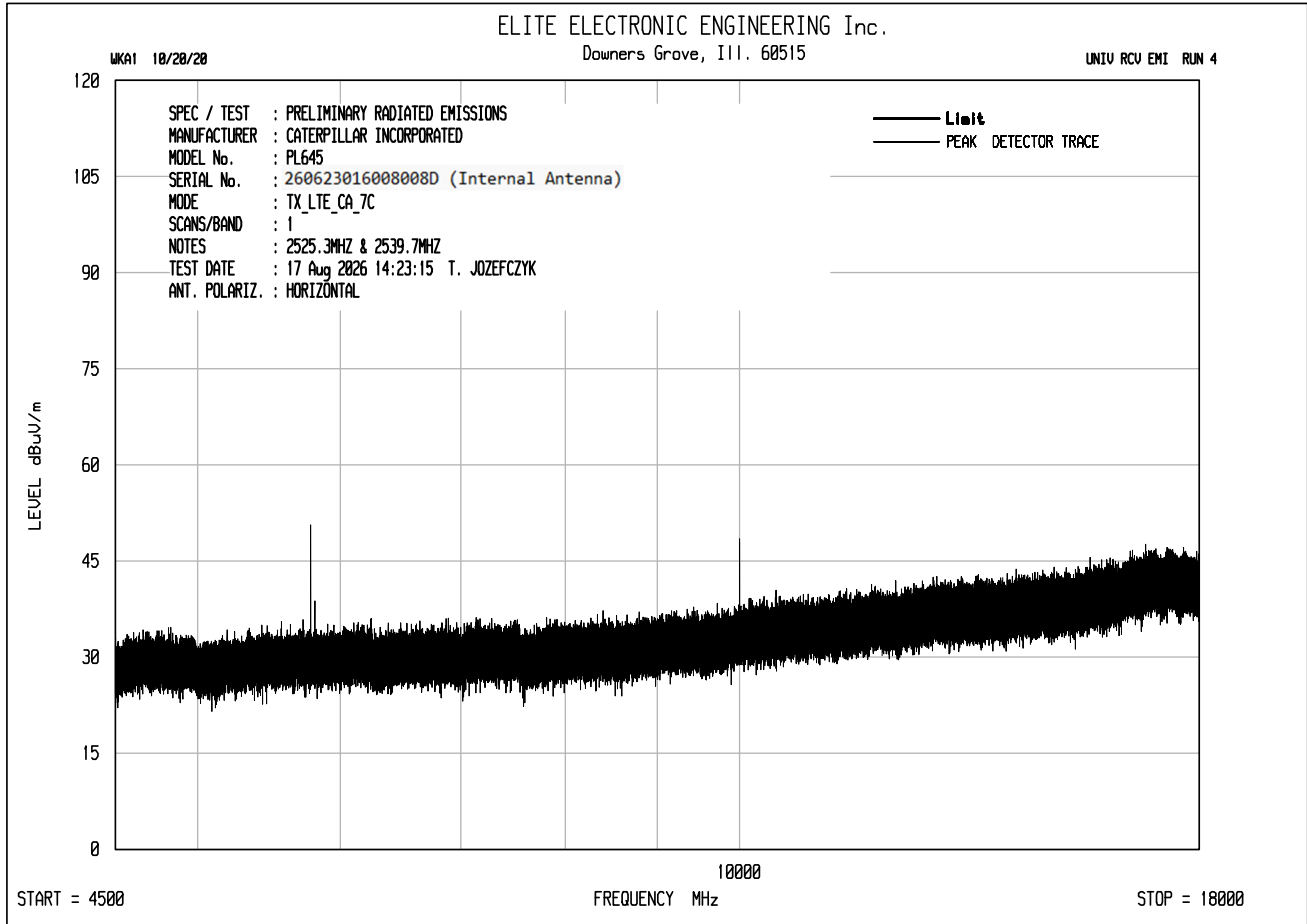
Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE CA
Frequency Tested	Band 7 – 2525.3MHz
Notes	None

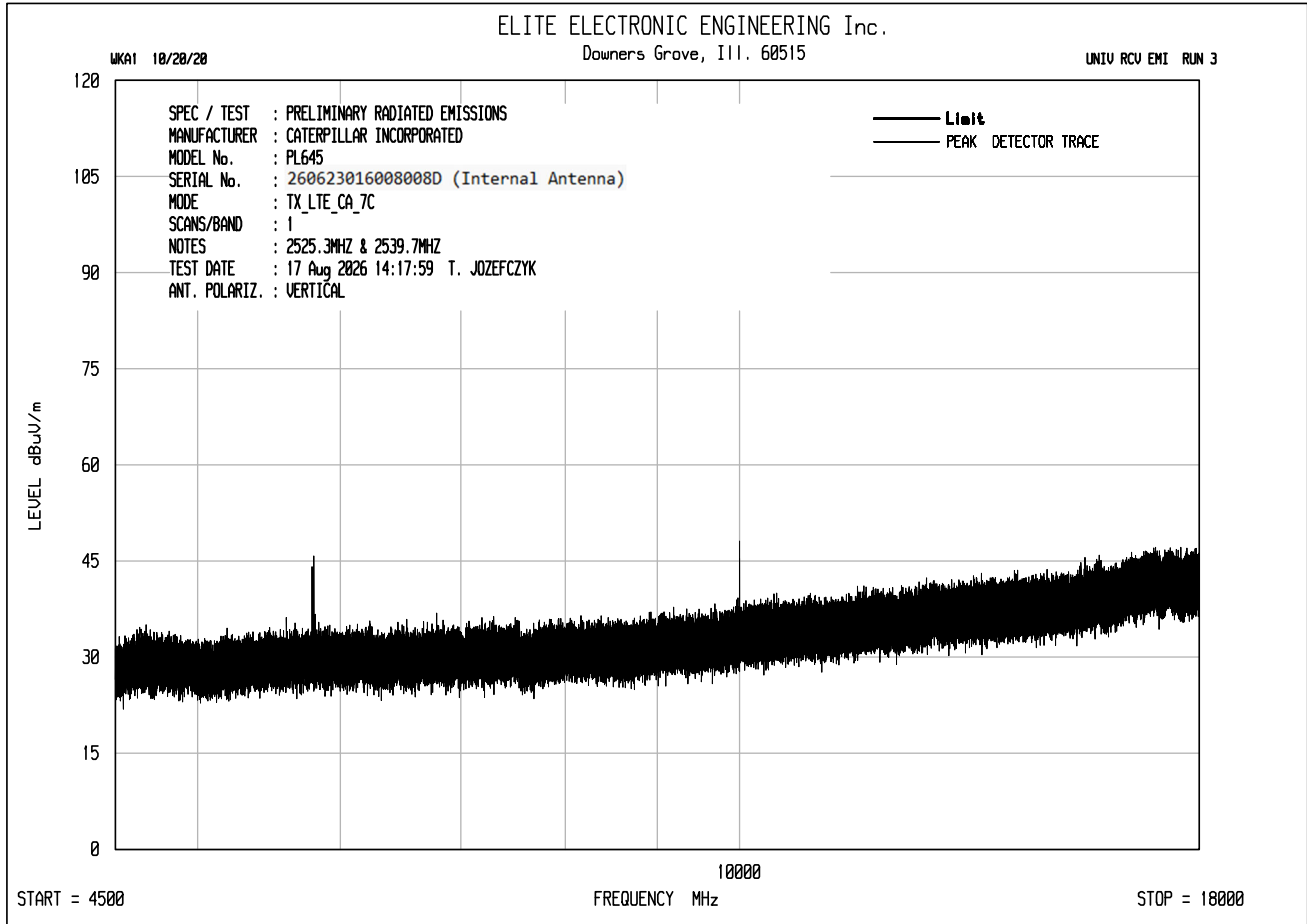


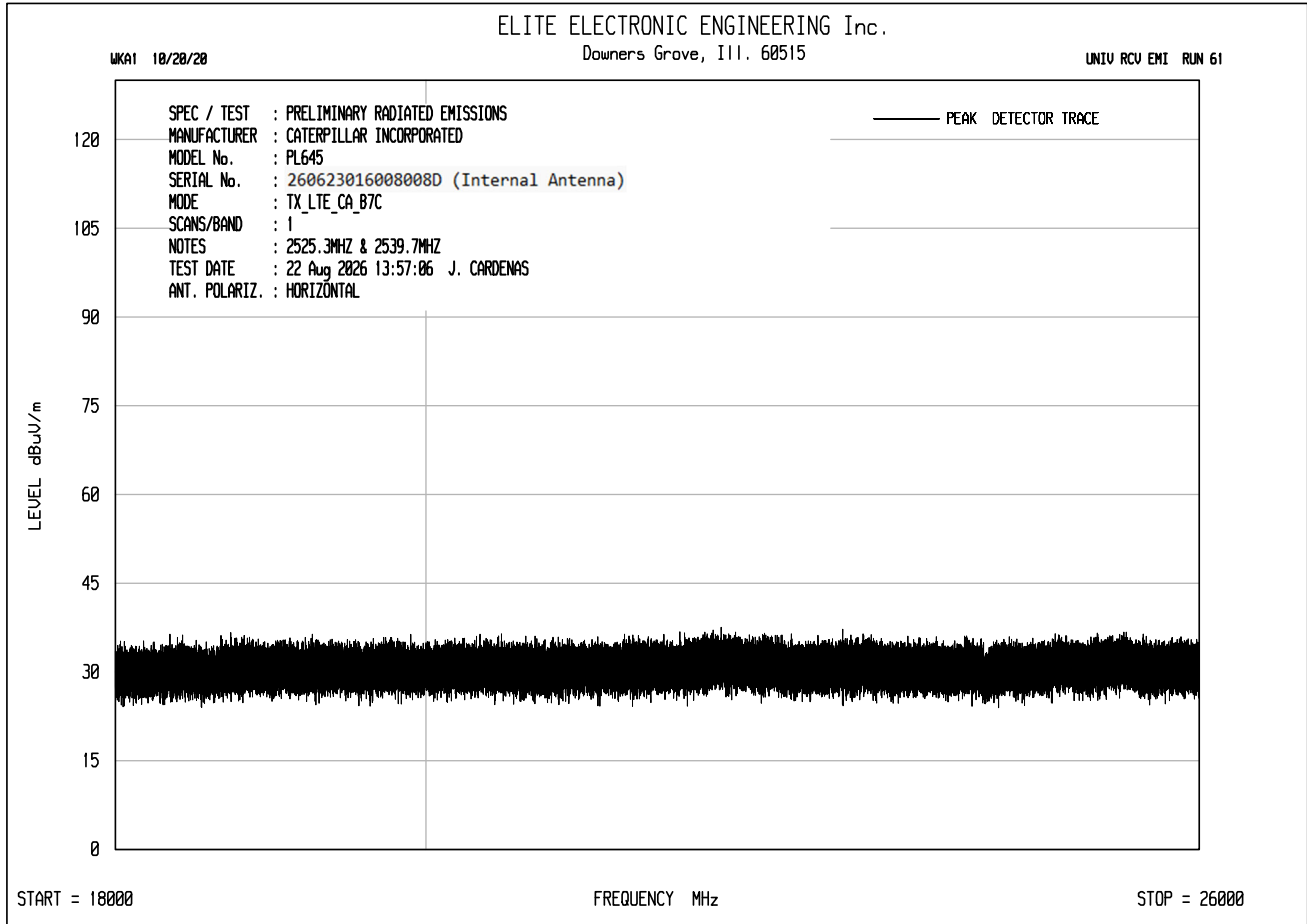


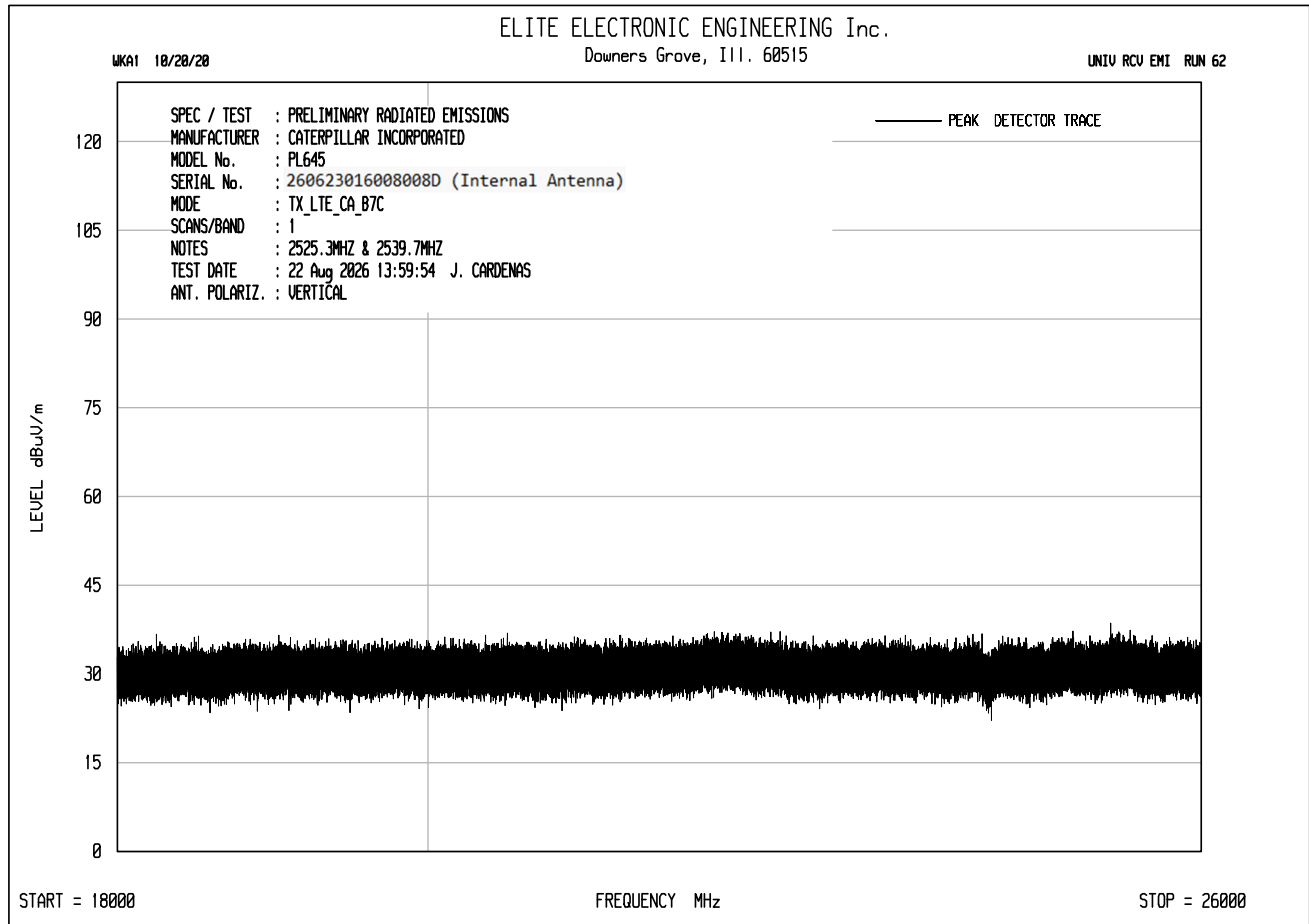












Freq. MHz	Ant Pol	Meter Reading (dBuV)	Ambient	Calculated Sig. Gen. Reading (dBm)	Equivalent Antenna Gain (dB)	Cable Loss (dB)	ERP (dBm)	Attenuation Below Output Power (dB)	Minimum Attenuation (dB)
5070.00	H	49.9	Ambient	-49.6	5.3	5.0	-49.3	72.3	36.0
5070.00	V	49.7	Ambient	-48.8	5.3	5.0	-48.5	71.5	36.0

Test Details	
Manufacturer	Caterpillar Inc
Equipment Under Test	5G Telematics Radio
Model No.	PL645
Part No.	7620.002.904-13
Serial No.	260619016008008D (Internal Antenna)
Mode	LTE CA
Frequency Tested	Band 7 – 2545.6MHz
Notes	None

