EXHIBIT 1

CFS8DL6128RFUL

Functional Description.

The **6128RFA** fixed transceiver is part of Ademco's wireless 5800 alarm system.
It is used in conjunction with portable transmitters (e.g. 5804) or portable transceivers (e.g. 5804BD). This allows remote control of the alarm system **and** provides remote indication that a control instruction has been enacted.

These messages are transmitted at 345Mhz +/-82kHz using on-off keyed AM modulation.

The **6128RFA** does not send a regular supervision or check-in message, it transmits no other messages except those which are a confirmation of reception of manually initiated control messages which have been received from portable remote control transmitters and control and alarm messages.

EXHIBIT 3

CFS8DL6128RFUL

Message protocol, timing and duty cycle calculation.

The data output is phase-encoded Manchester which has inherent 50% duty cycle.

The transmitted data rate is 3.95 kBs +/-0.5%, i.e. each bit is 253.1uS duration typical and 254.3uS max.

The word format consists of 72 bits,

The duration of each word is 18.31mSec max.

Each word is transmitted 6 times at each transmission event, the words are separated (start to start) by 120mSec.

The total transmission time at each transmission event is 618.31mSec.

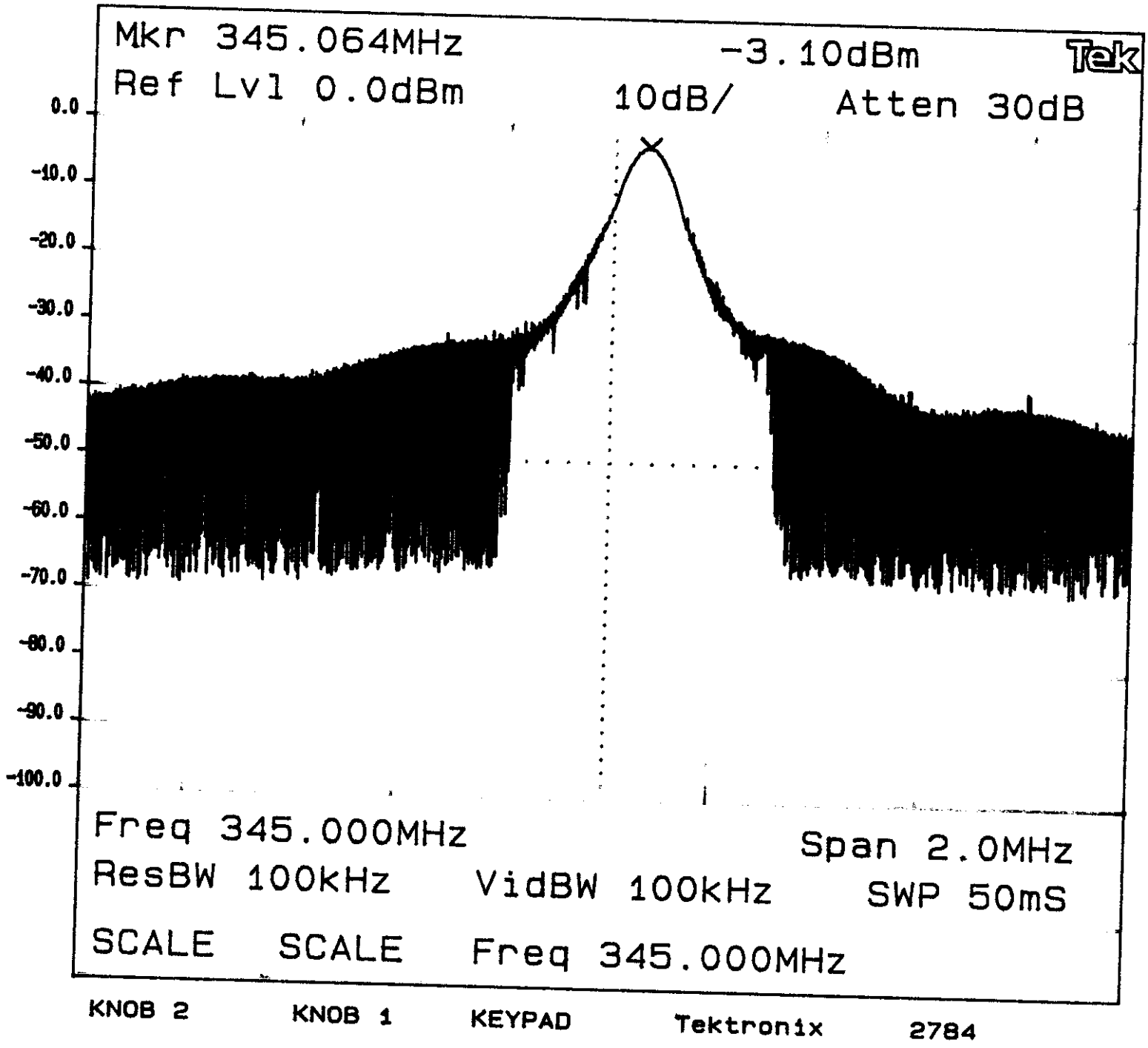
The duty cycle over a 100mSec measuring period is calculated as follows:

Duty Cycle = Actual RF transmission ON time / 100mSec (interval)

Actual transmission ON time = 72 bits X 50% X 254.3uSec =
= 9.15mSec

Therefore Duty cycle = 9.15 / 100 mSec = .0915 = 9.15%

Summary.
Max on-air time = 618.31mSec
Duty cycle for average power calculation = 10%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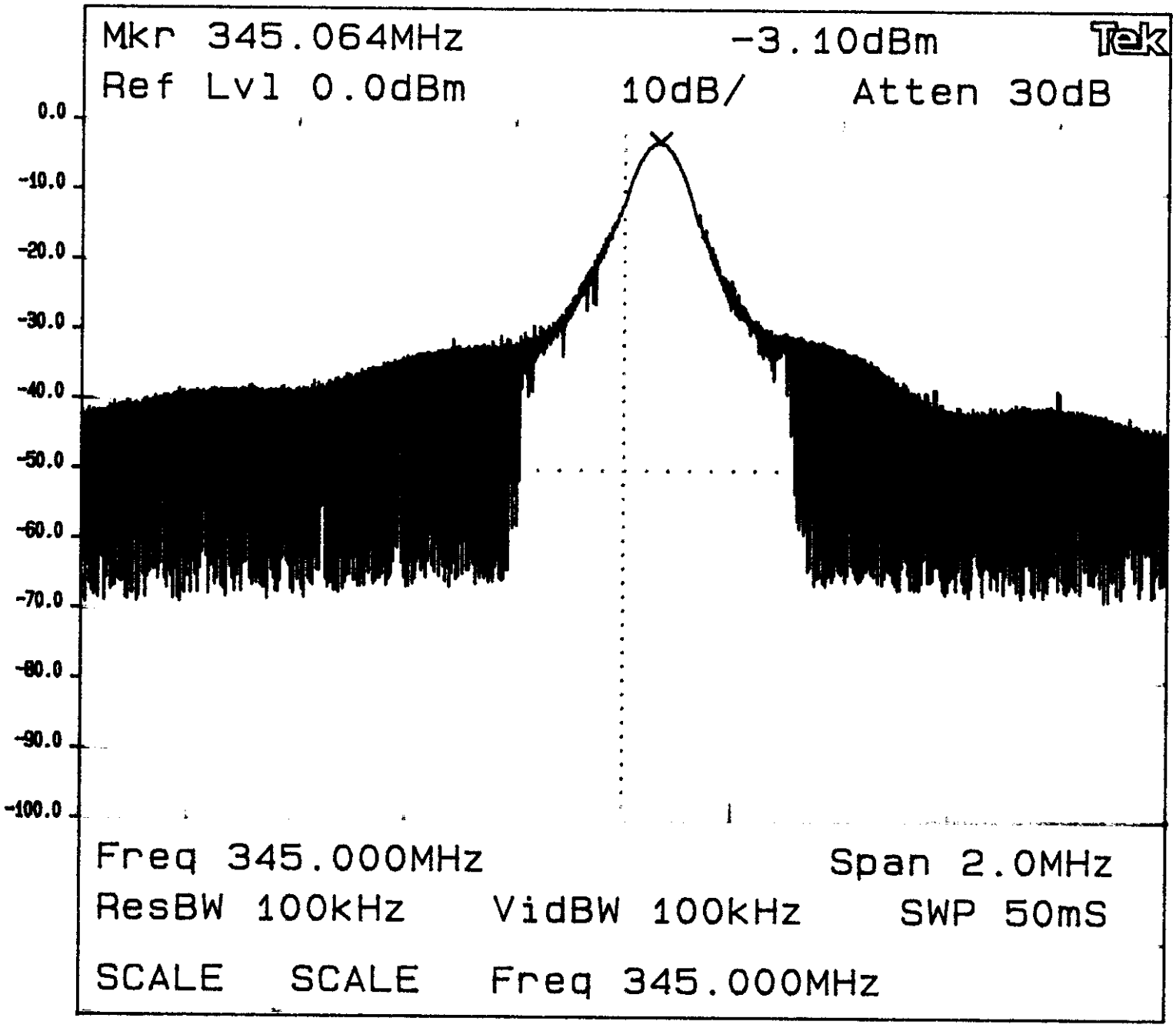
-3.10dBm
Tek
Ref Lvl 0.0dBm
10dB/
Atten 30dB
0.0
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100.0
Freq 345.000MHz
Span 2.0MHz
ResBW 100kHz
VidBW 100kHz
SWP 50mS
SCALE
SCALE
Freq 345.000MHz
KNOB 2
KNOB 1
KEYPAD
Tektronix
2784


Mkr 345.064MHz
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-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100.0
Freq 345.000MHz
Span 2.0MHz
ResBW 100kHz
VidBW 100kHz
SWP 50mS
SCALE
SCALE
Freq 345.000MHz
KNOB 2
KNOB 1
KEYPAD
Tektronix
2784

EXHIBIT 2

Circuit Description. **CFS8DL6128RFUL**

The 6128RFA is constructed on a single PCB.

The PCB contains microcontrollers U2 and U9, LED indicators CR10 and CR11, sounder, keypad switches, RF transmitter Q3/Y2 etc., Low Noise Amplifier Q8, IF circuitry U5, Local Oscillator Y5 (refer to circuit schematic for component designations).

The transmitter is a SAW resonator Colpitts oscillator, Q3, Y2 etc. The transmitter is on-off keyed (AM) modulated by a control signal from the microcontroller which turns PA Q4 on or off via Q6/Q7, thus modulating the output signal. The antenna ANT1/ANT2 is PCB mounted and is coupled to the transmitter output via cap C1.

The receiver is a superhet with a single intermediate frequency at 10.7MHz. Q8 etc. is the low noise amplifier which is connected to the PCB mounted antennas. Diodes CR4/CR6 under the control of a microcontroller are periodically switched to provide system antenna diversity. The IC U5 includes a balanced mixer which converts the incoming signal down from 345MHz to 10.7MHz. This IC also includes the required IF gain and detected output. FL1 and FL2 are ceramic IF filters. IC U4 performs video filtering and processing and provides a data signal. The local oscillator (Y5) is a 355.7 Mhz SAW oscillator which has its active element contained within U5.

EXHIBIT 5

CFS8DL6128RFUL

Report of Measurements.
Measurements were made in accordance with the procedures and reporting requirements of ANSI C63.4-1992.

Since this is a transceiver device, requiring certification of the transmitter and verification of the superhet receiver, only the transmitter emissions are reported (below).

The Test Set-Up (C63.4 section 10.1.3) is shown in the attached drawing.
The sequence of testing (C63.4 section 10.1.7) for radiated emissions is as follows: A preliminary scan was conducted with the receiver antenna close to the EUT in order to identify the emission characteristics of the EUT (C63.4 section 8.3.1.1). The antenna and EUT were then placed at the proper separation with the EUT positioned on a non-conducting turntable. The EUT was rotated on the turntable to maximize the received signal strength, then the receiver antenna height was varied to further maximize the received reading. Thereafter, the device was again rotated to a peak output position and the antenna height was re-adjusted for maximum received signal. This procedure was re-iterated until there was no further increase in signal level. This procedure was performed with the EUT rotating in three orthogonal planes (C63.4 section 13.1.4.1) to generate a final maximum reading which is recorded on the radiated emissions result sheet.

Similar measurements were made on the receiver to ensure compliance as an unintentional radiator. The results of the receiver emission measurements are in the Ademco Radio Engineering FCC file at the address above.

See Exhibit 6 for list of test equipment (C63.4 section 10.1.4).

Note, Spectrum Analyzer resolution bandwidths set as follows; (Video Bandwidth set greater than RBW)

- For occupied bandwidth measurements, RBW = 100kHz, (This is in accordance with the minimum RBW allowed by C63.4, which requires RBW greater than 5% of the FCC required occupied bandwidth spec of 0.25% of center frequency).
- For radiated emissions below 1 GHz, the RBW = 100kHz. Detector function set to peak.
- For radiated emissions above 1 GHz, the RBW = 1MHz. Detector function set to peak.

OCCUPIED BANDWIDTH is shown on attached plot.
RADIATED EMISSIONS are recorded on attached sheet.

RADIATED EMISSIONS DATA SHEET

DATE: 3/2/99 TESTED BY: [signature] APPROVED BY: [signature]

TEST SAMPLE (model): ADEMCO Transmitter 6127REFUL

TEST METHOD: ANSI C63.4 - 1992

TEST SPECIFICATION: FCC Part 15, Subpart C

NOTES: 1) Fc = 345 MHz, 2) Detector = Peak, 3) Frequency range scanned to 4 GHz. Emissions not reported were more than 20 dB below the specified limit.

4) Conv. reading = $10^{\left[\frac{(\text{Meter reading} + \text{Cable/Amp factor} + \text{Antenna factor})}{20}\right]}$

5) Corr. reading = Conv. reading X Duty cycle

FREQUENCY (MHz)	POLARITY (V / H)	METER READING (dB uV)	CABLE/AMP FACTOR (dB)	ANTENNA FACTOR (dB/M)	CONV. READING (uV/M)	DUTY CYCLE (%)	CORR. READING (uV/M)	LIMIT @ 3M (uV/M)
	H					10 %		
30	↓					↓		729
↓								↓
345		79.45	~~1.4~~	16	69582.49		6958.24	7292
↓								↓
690		53.8	~~1.8~~	21.1	6839.1		683.91	729
↓								↓
1035		44.15	2.1	25.2	3736.80		373.68	500
↓								↓
1380		37.17	2.5	28.8	2651.55		265.155	500
↓								↓
1725	↓	36.35	~~1.3~~ 3.0	31.2	3368.99	↓	336.9	729
↓								↓
4000								729

®ADEMCO
Alarm Device Manufacturing Company
A Division of Pittway Corporation
165 Eileen way
Syosset, NY 11791

EXHIBIT - TEST SET UP

FCC ID: CFS8DL

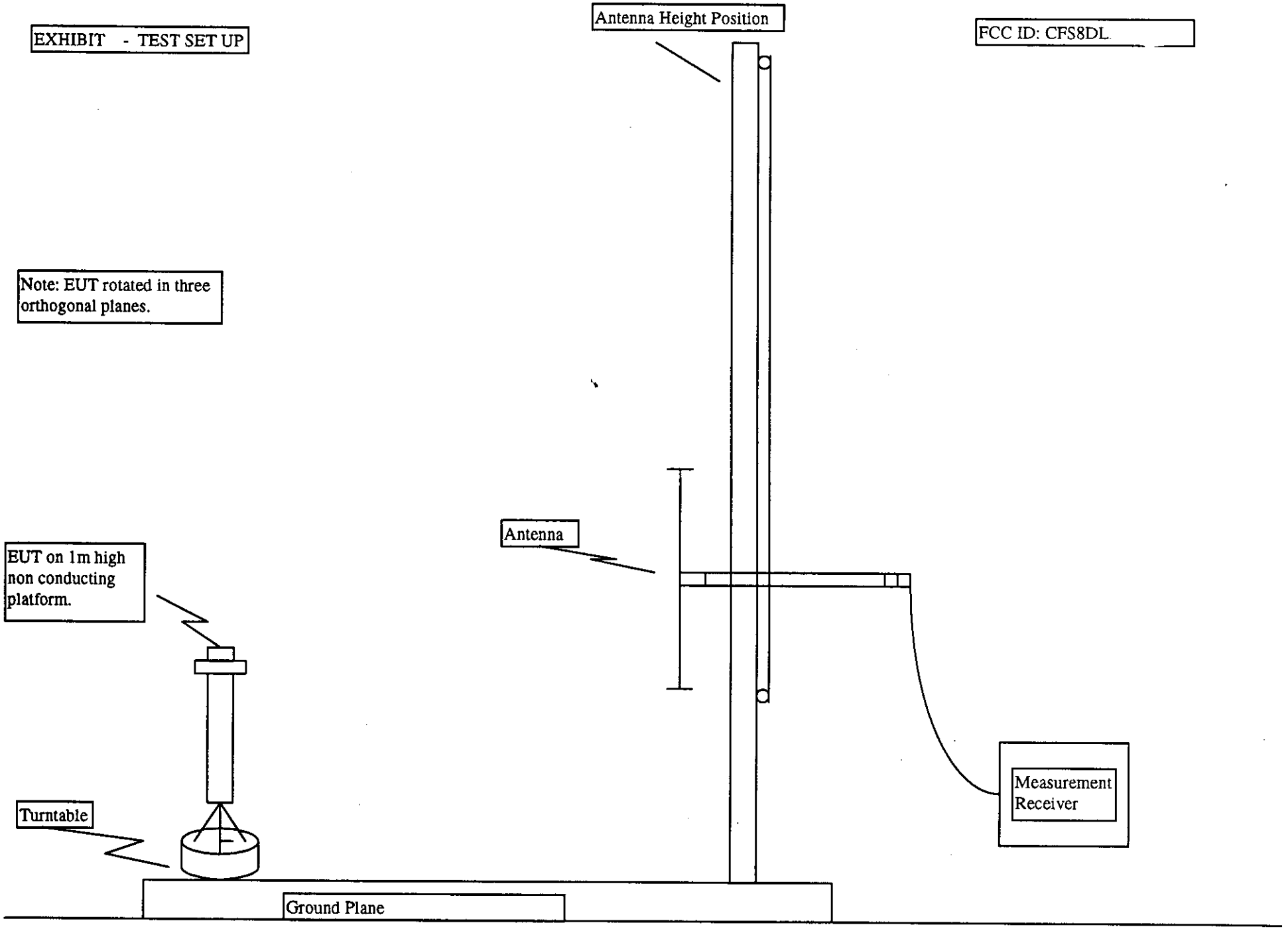

EXHIBIT 6

CFS8DL6128RFUL

Test Equipment List.

Model	Description	Calibrated	s/n
Antenna	Roberts dipole 30 - 65 MHz	1/20/99	110
Antenna	Roberts dipole 65 - 180 MHz	1/20/99	110
Antenna	Roberts dipole 180 - 400 MHz	1/20/99	110
Antenna	Roberts dipole 400 - 1000 MHz	1/20/99	110
Antenna	Electrometrics Horn 1 - 18 GHz	1/27/99	6127
Cable	RG58U		before use
2784	Tektronix spectrum analyzer	7/29/98	B010165