

Department: Electronics and Communication Engineering

BEC451- COMMUNICATION ENGINEERING LAB

LIST OF EXPERIMENT

SUGGESTIVE LIST OF EXPERIMENTS

1. To study DSB/ SSB amplitude modulation & determine its modulation factor & power in side bands.
2. To study amplitude demodulation by linear diode detector.
3. To study frequency modulation and determine its modulation factor.
4. To study sampling and reconstruction of pulse amplitude modulation system.
5. To study pulse amplitude modulation. a) Using switching method b) By sample and hold circuit
6. To demodulate the obtained PAM signal by 2nd order LPF.
7. To study pulse width modulation and pulse position modulation.
8. To study pulse code modulation and demodulation technique.
9. To study delta modulation and demodulation technique.
10. To construct a square wave with the help of fundamental frequency and its harmonic component.
11. Study of amplitude shift keying modulator and demodulator.
12. Study of frequency shift keying modulator and demodulator.
13. Study of phase shift keying modulator and demodulator.
14. Study of single bit error detection and correction using hamming code.
15. Study of quadrature phase shift keying modulator and demodulator.
16. To simulate differential phase shift keying technique using MATLAB software.
17. To simulate M-ary Phase shift keying technique using MATLAB software (8PSK, 16PSK) and perform BER calculations.
18. Design a front end BPSK modulator and demodulator.

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LIST OF EQUIPMENT

Subject Code of the Lab : KEC451

Name of the Lab : COMMUNICATION ENGINEERING LAB

S. No.	Name of Equipment
1	POWER SUPPLY (SCIENTECH ST-4071)
2	POWER SUPPLY (SCIENTECH HM-5040)
3	POWER SUPPLY (TRINITY TPS -30027)
4	FUNCTION GENERATOR (SCIENTIFIC 10MHZ SM-5078A)
5	FUNCTION GENERATOR (KEYSIGHT 10KHZ 33210A)
6	FUNCTION GENERATOR (SCIENTIFIC 10MHZ 4061)
7	DSO (KEYSIGHT 50MHZ EDUX1002A)
8	DSO (SCIENTECH 70MHZ 402)
9	LCR METER (CADDO MODEL NO. 9302)
10	CRO (SCIENTIFIC 30MHZ HM - 203M)
11	DELTA SIGMA MOD/DE MOD TRAMER KIT(SCIENTECH ST-2105)
12	AMPLITUDE MOD/ DE MOD (EXEL ET-AMD)
13	AMPLITUDE MOD/ DE MOD (EXEL ET-ETAM)
14	FREQUENCY MOD/DE MODULATION (EXEL- ET AM)
15	DIGITAL COMM. TRAINER MOD/DEMED
16	TDM/ PCM TRANSMETER KIT (SCIENTECH ST 2103)
17	TDM PULSE CODE MOD RECEIVER (SCIENTECH ST2104)
18	TDM PULSE AMPLITUDE MOD/ DE MOD (SCIENTECH ST 2102)
19	DATA FORMATTING AND CARRER MOD TRANSMETER (SCIENTECH 2106)
20	DSB/SSB AM TRANSMETER (EXEL ME781)
21	DSB/SSB AM RECEIVER (EXEL ME 782)

Galgotias College of Engineering and Technology
1, Knowledge Park-II, Greater Noida, 201306(Uttar Pradesh)

22	DSB/SSB AM TRANSMETER (SCIENTECH ST 2201)
23	ANTENNA TRAINER KIT SCIENTECH ST2261
24	TRASMISSION LINE TRAINER SCIENTECH ST 2266
25	SIMPLING AND RE CONSTRUCTION SCIENTECH ST 2101
26	SIMPLING AND RE CONSTRUCTION EXEL ET ASSR
27	CARRER DE MODULATION AND DATA D FORMATING SCIENTECH ST 2107
28	DIGITAL COMM ANALOG TRAINER EXEL
29	QPSK MOD / DEMOD EXEL ET QPSK
30	PCM MOD/ DE MOD EXEL ET PCM
31	PPM MOD/ DE MOD EXEL ET PPM
32	PSK MOD/ DE MOD EXEL ET PSK
33	DELTA MOD/ DE MOD EXEL ETDMD
34	PWM MOD / DEMOD EXEL ETPWM
35	PAM MOD/ DEMOD EXEL ET PAM
36	ASK MOD/DE MOD EXEL ET ASK
37	FSK MOD/DEMOD EXEL ETFSK