Digital Communication Lab

Laboratory report submitted for the partial fulfillment
of the requirements for the degree of

Bachelor of Technology
in
Electronics and Communication Engineering

by

Kartikeya Acharya

21UEC072

Course Coordinator
Dr. Nikhil Sharma

Department of Electronics and Communication Engineering
The LNM Institute of Information Technology, Jaipur

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Chapter *1*

Experiment -3

1.1 Aim

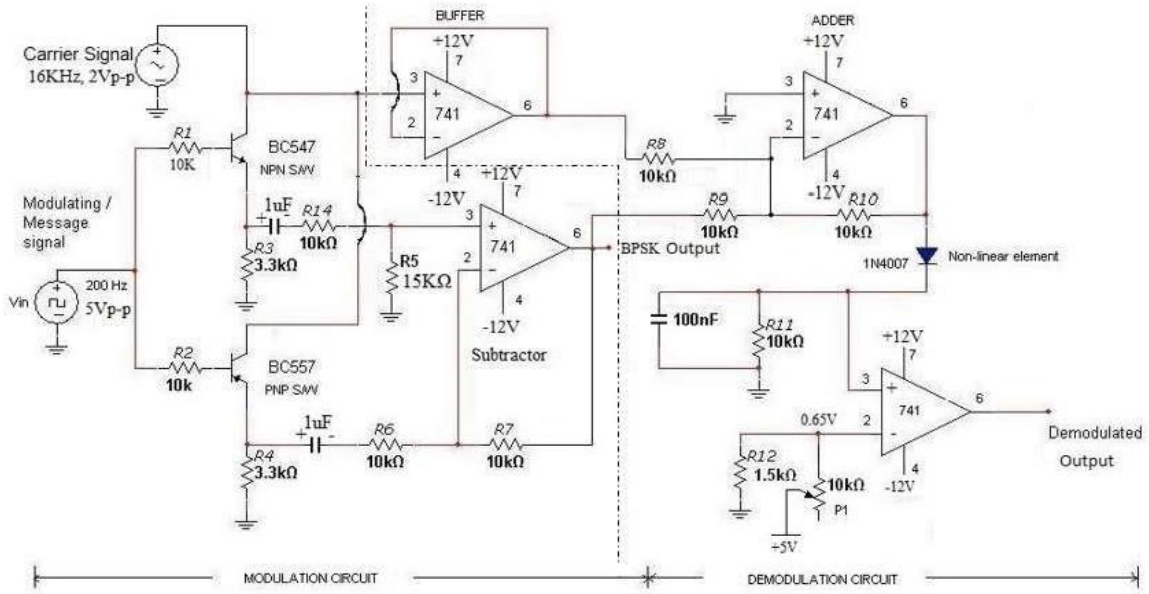
1. Implement BPSK Modulation and Demodulation.

1.2 Apparatus Required

1. IC: LM741 (Operational Amplifier)
2. Diode
3. DC Power Supply
4. Breadboard
5. Digital Storage Oscilloscope
6. Resistance
7. Connecting Wires
8. Function Generator
9. BJT [BC547, BC557]
10. Capacitor
11. DSO Probes

•l.3 Theory

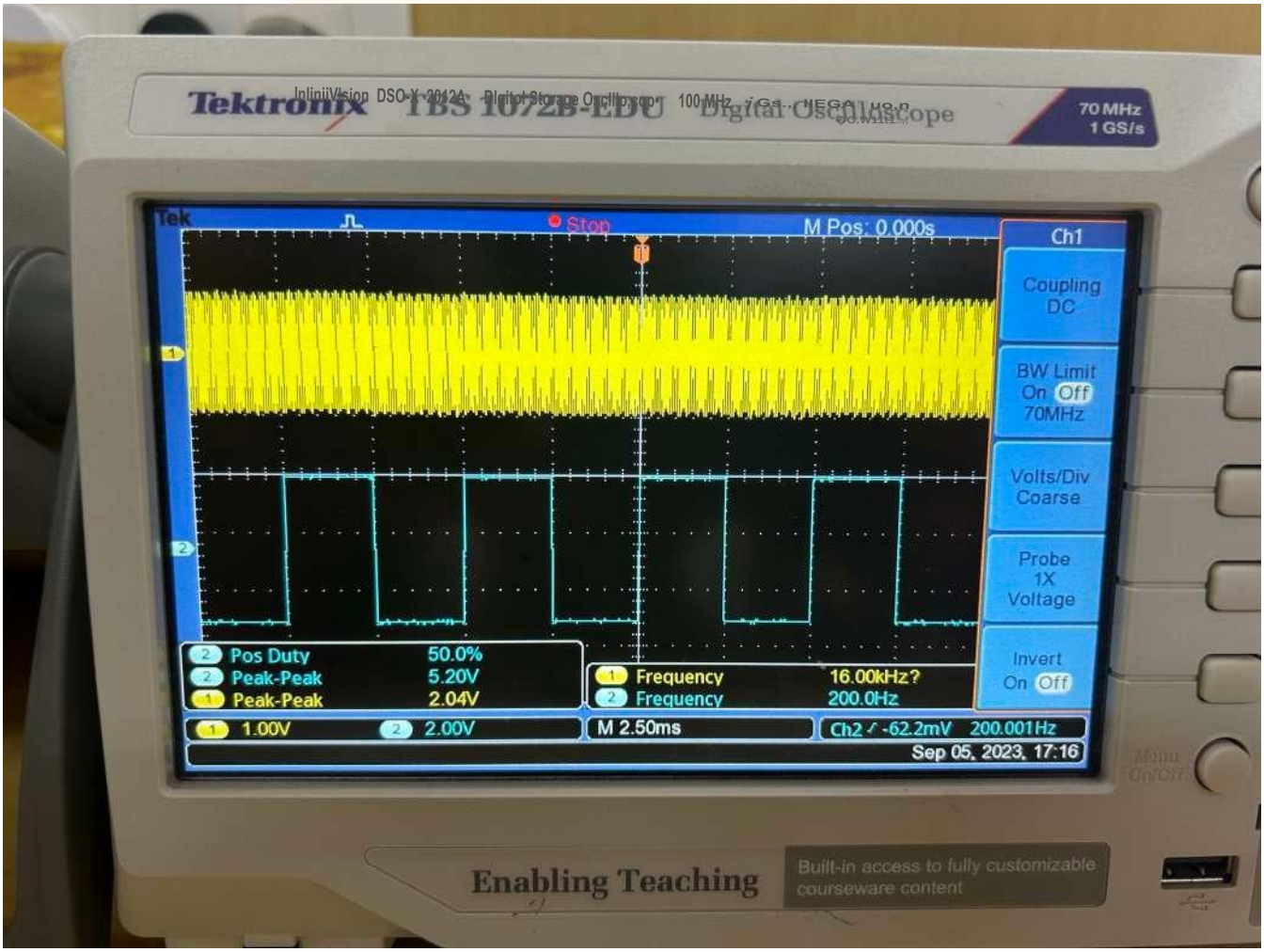
1.3 .1Connection Diagram



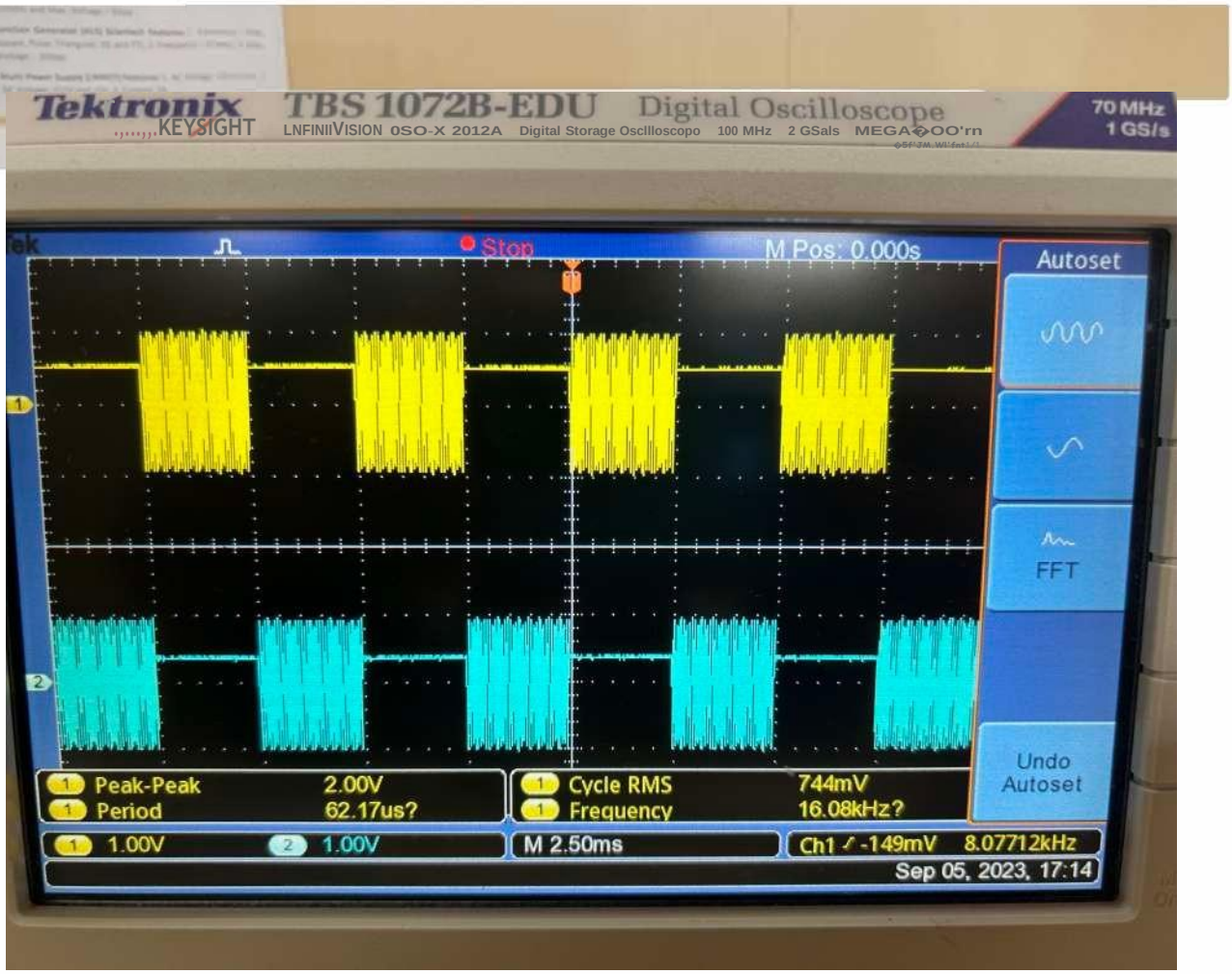
1.4 Observations

A) Carrier Side Band Power - -35.70dbv
USB - 16.l0kHz
LSB - 15.70kHz

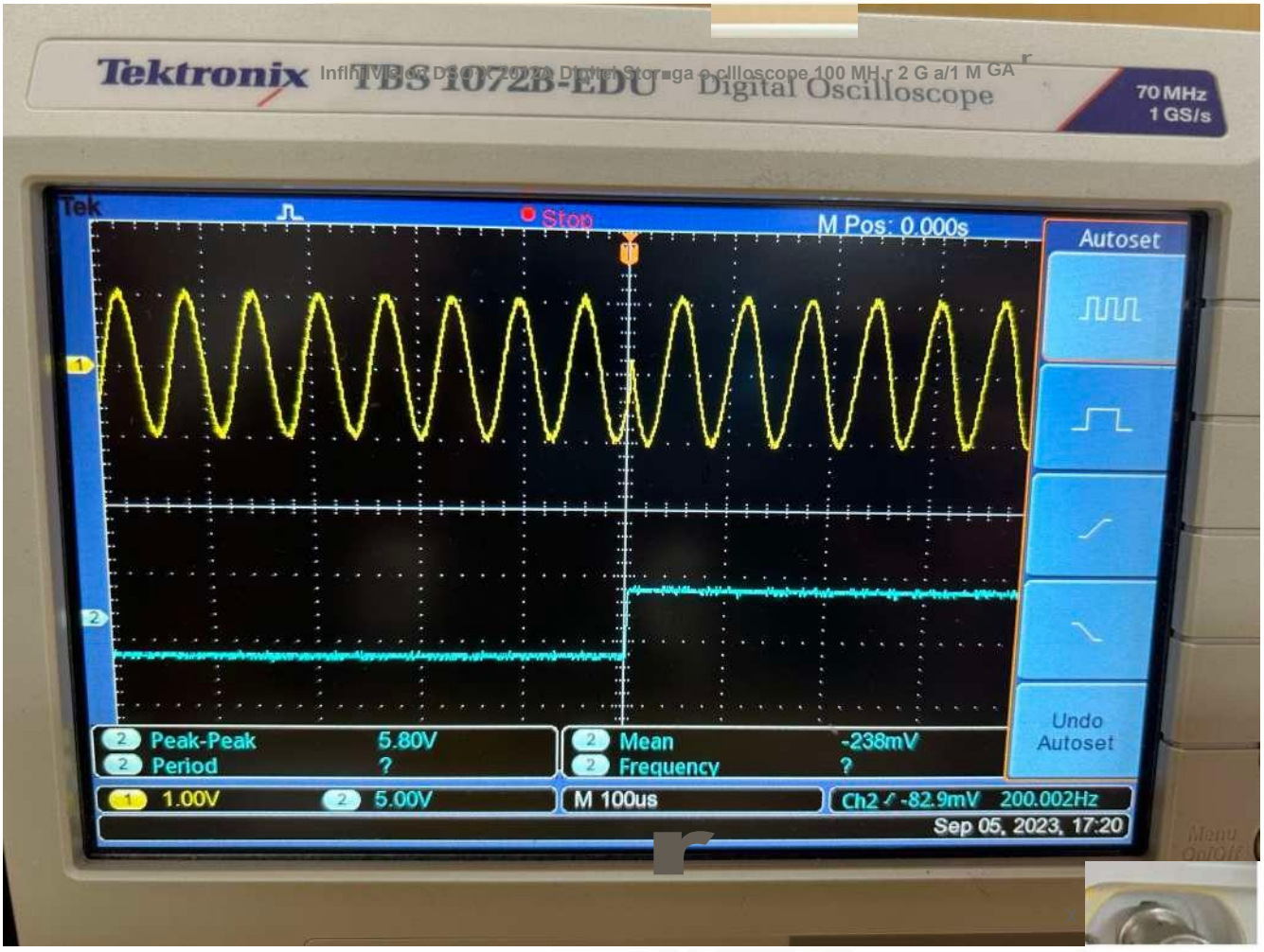
1.5 Results



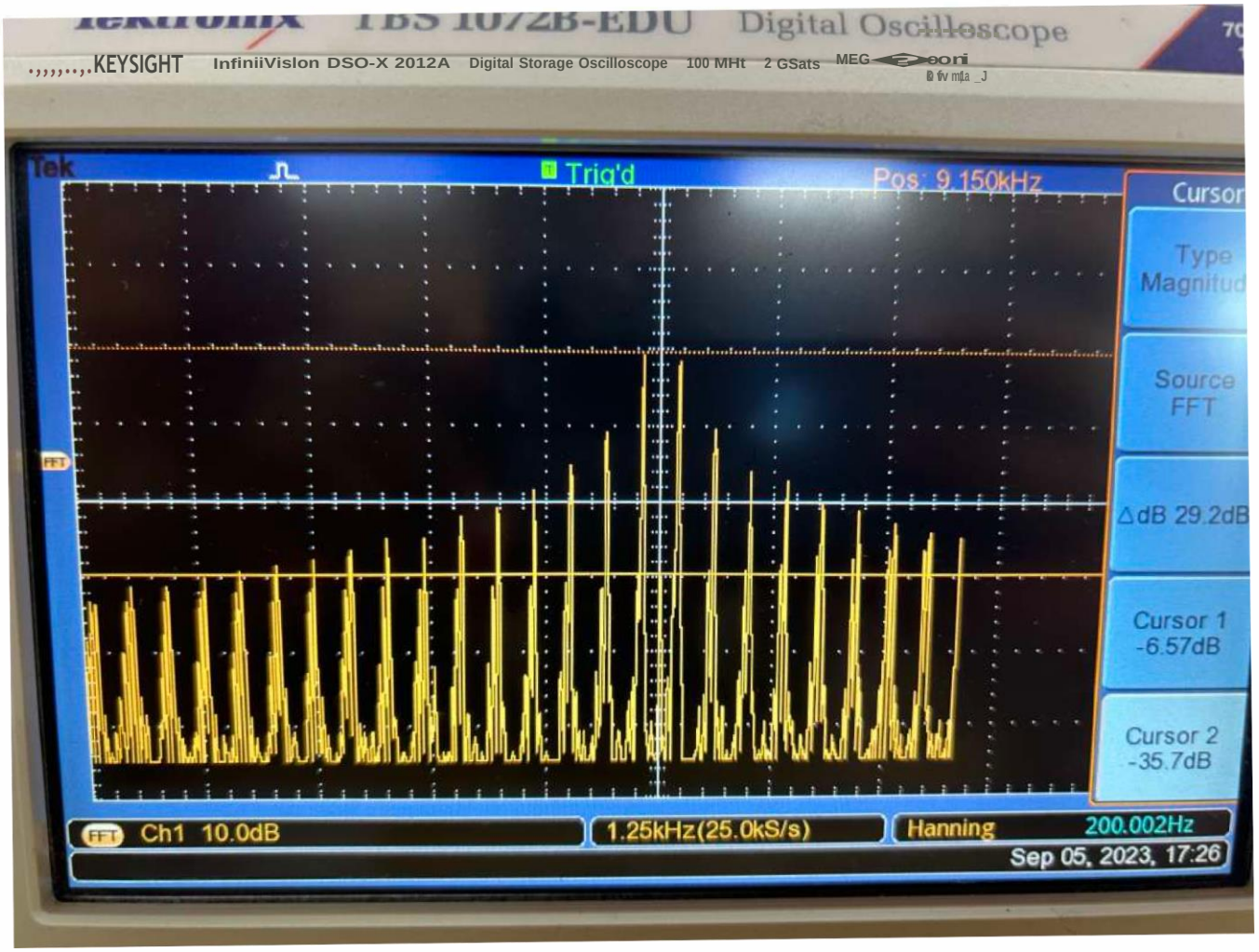
Carrier Signal + Message Signal



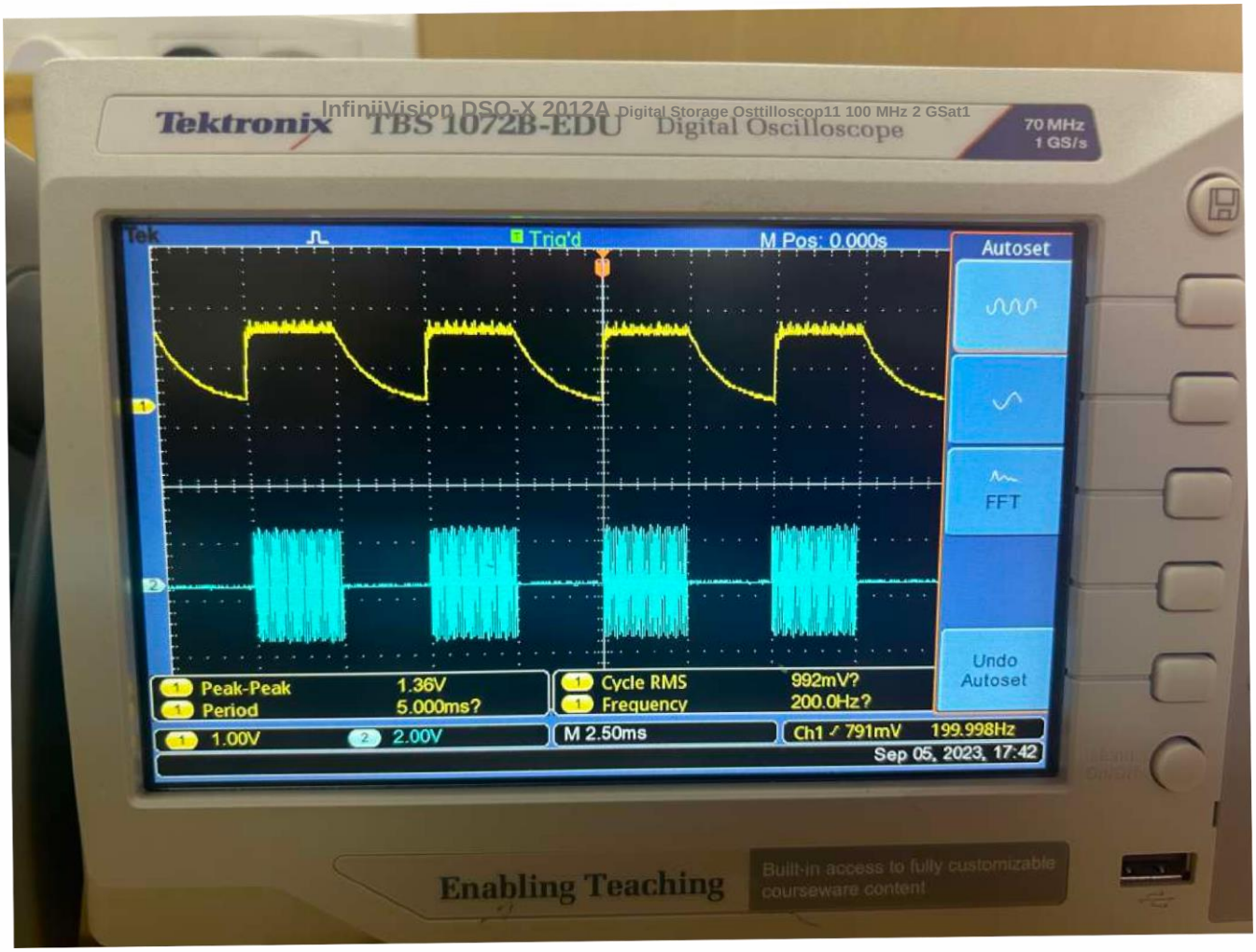
Output of Both Transistor at Emmiter



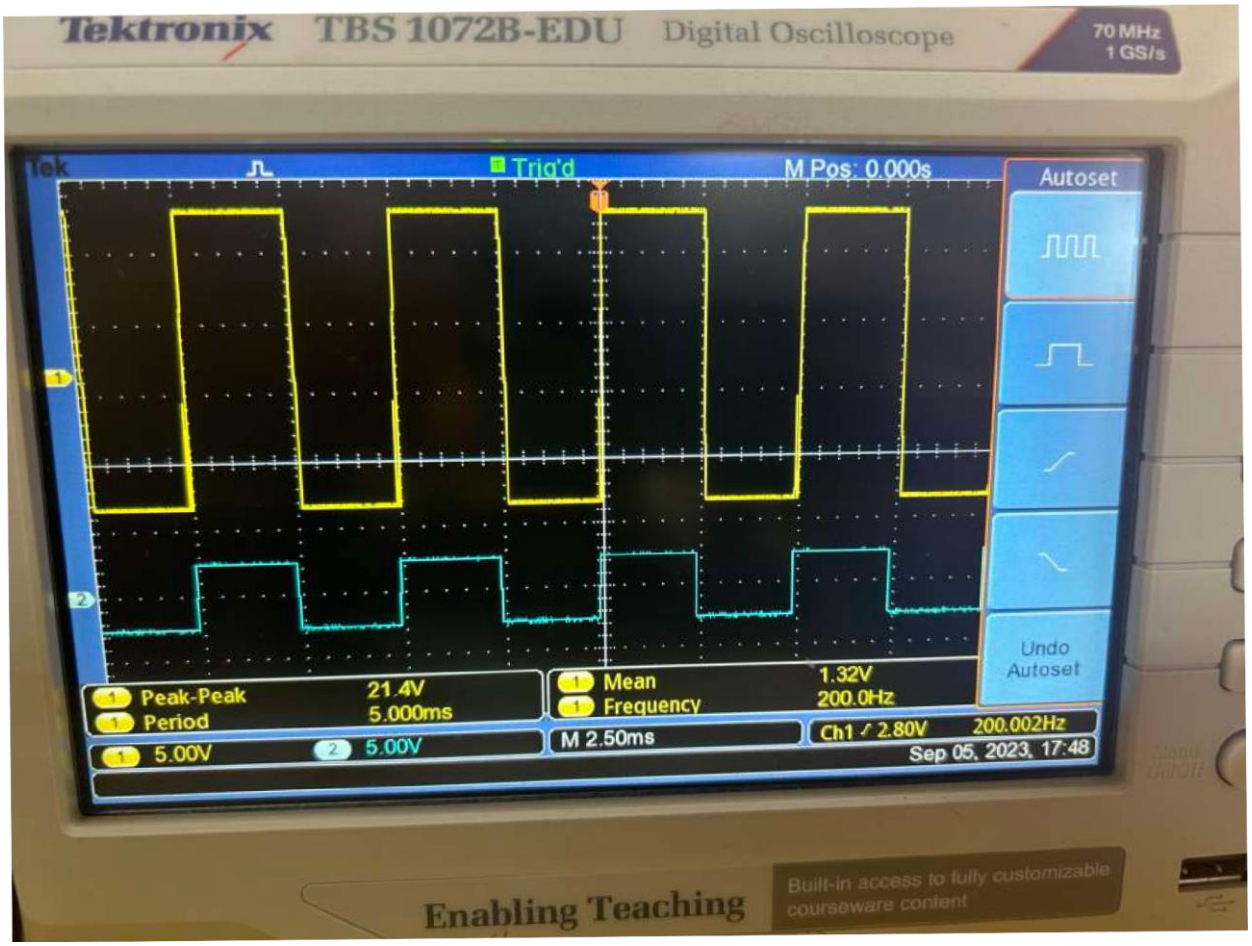
BPSK Output with Message Signal



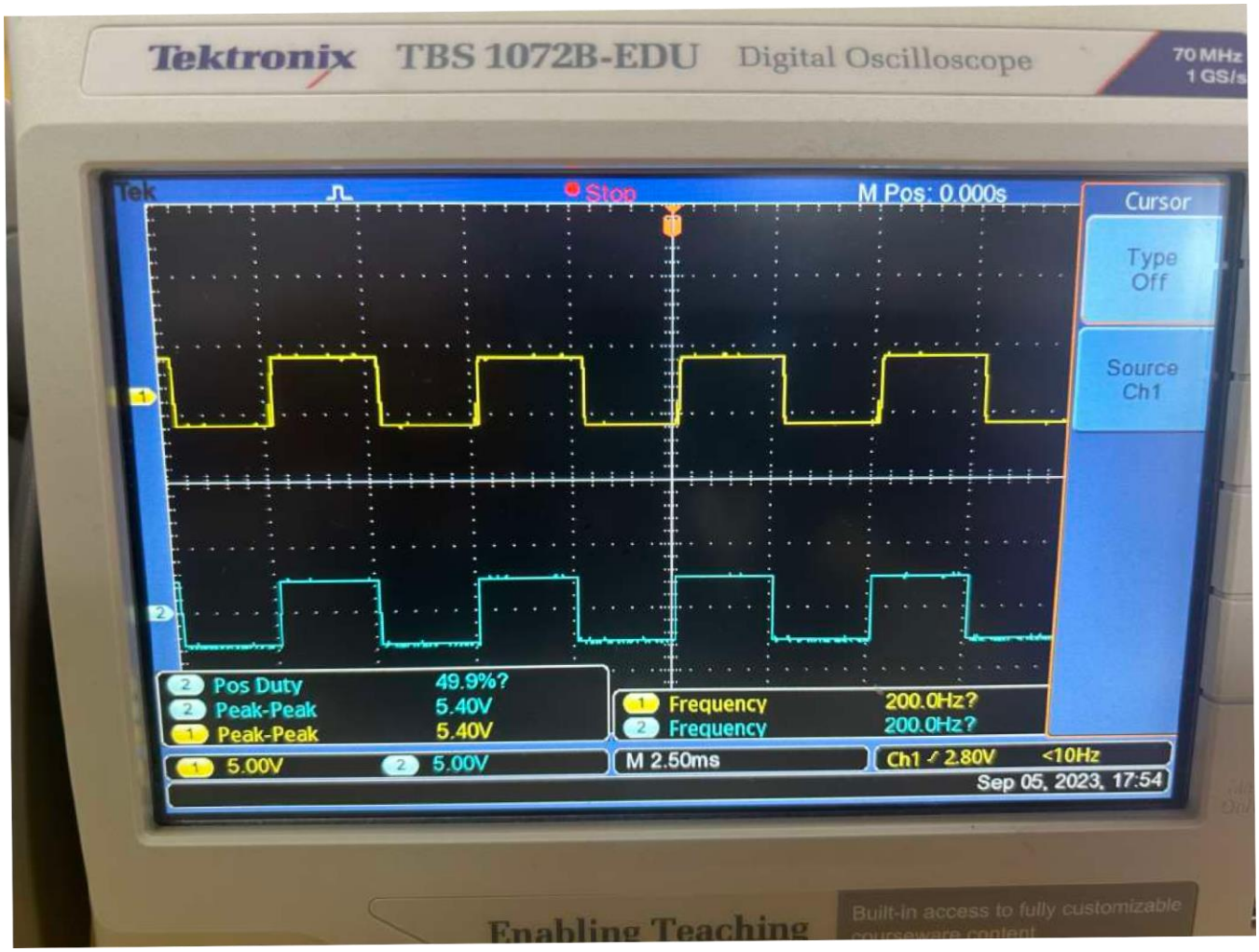
BPSK Output (Freq Domain)



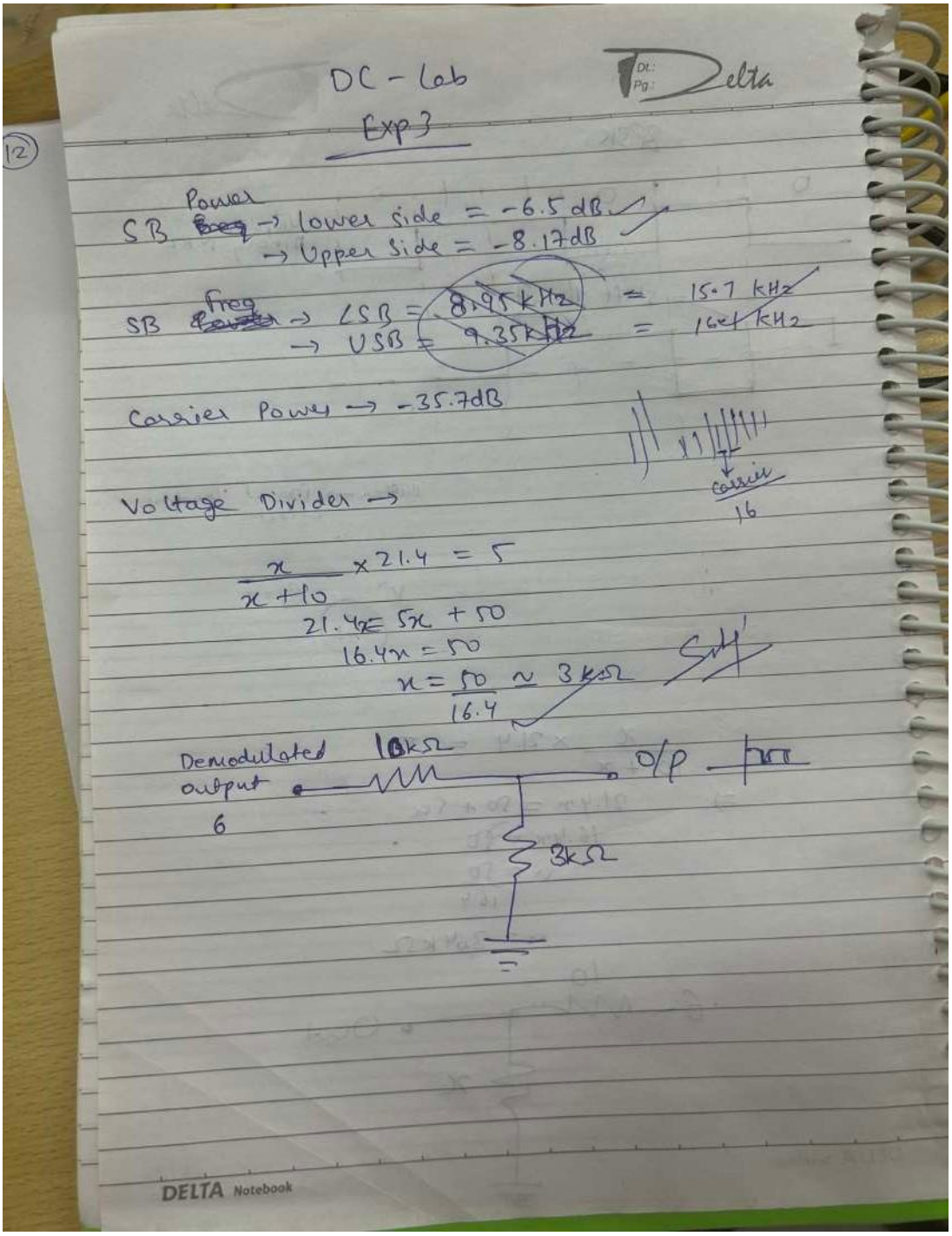
Output after adder and Envelope Detector



Demodulated output with Message Signal



Output after Voltage Divider Circuit



Calculations-Written

1.6 Conclusions

Implemented BPSK Modulation and Demodulation.

1.7 Precautions

1. Check the connections before switching on the kit.
2. Connections should be done properly.
3. Observation should be taken properly.