

We are using the following configuration

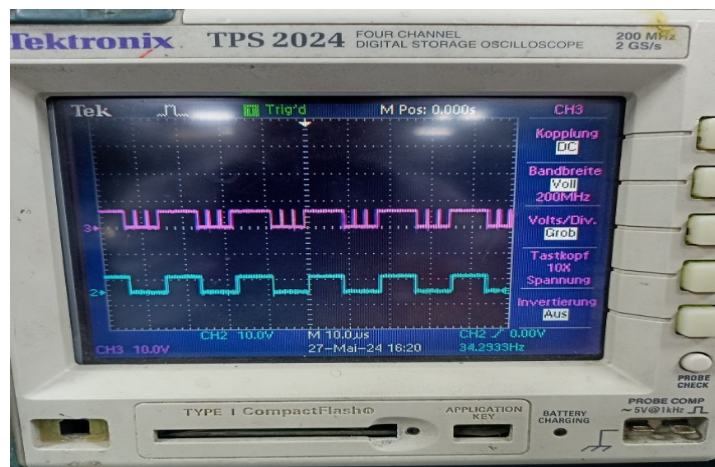
- Input Supply : 24V
- Battery cell configuration : 4 cell
- Battery configured voltage : 17V
- Battery charging current : 512mA

The following is mentioned in the datasheet.

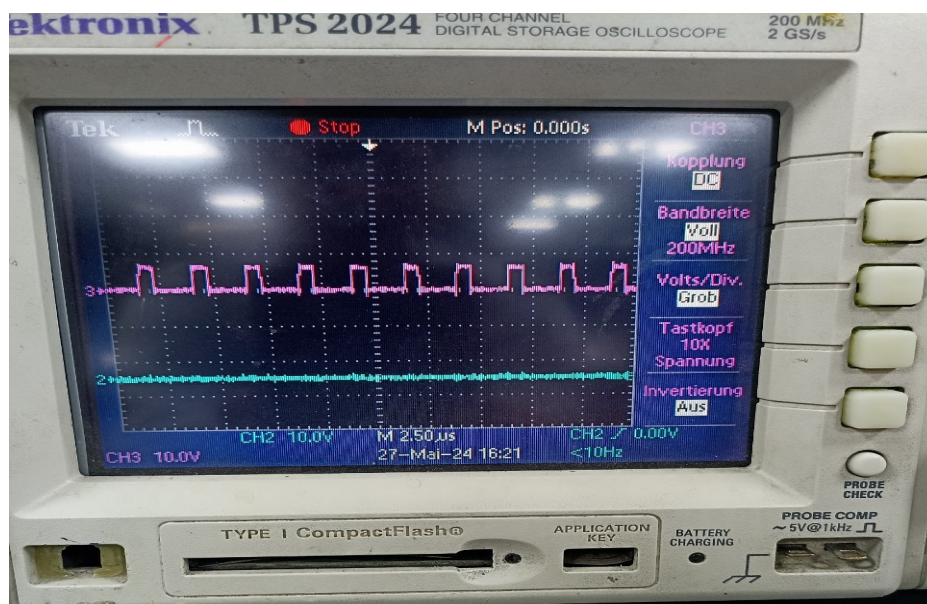
Table 9-3. MOSFET Operation

MODE	BUCK	BUCK-BOOST	BOOST
Q1	Switching	Switching	ON
Q2	Switching	Switching	OFF
Q3	OFF	Switching	Switching

In this buck operation Q2 should be switching and Q3 should be OFF. We have captured gate signals and given below(CH3 – Q2 and Ch2 – Q3). **Why there is switching in Q3?**



When we increase charging current to 1536mA then it is working correctly as shown below.



For understanding purpose we have tested boost operation also

We are using the following configuration

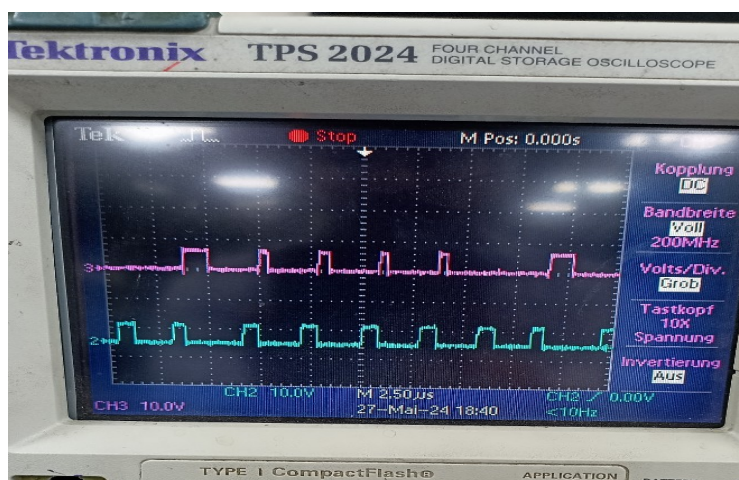
- Input Supply : 12V
- Battery cell configuration : 4 cell
- Battery configured voltage : 17V
- Battery charging current : 512mA

The following is mentioned in the datasheet.

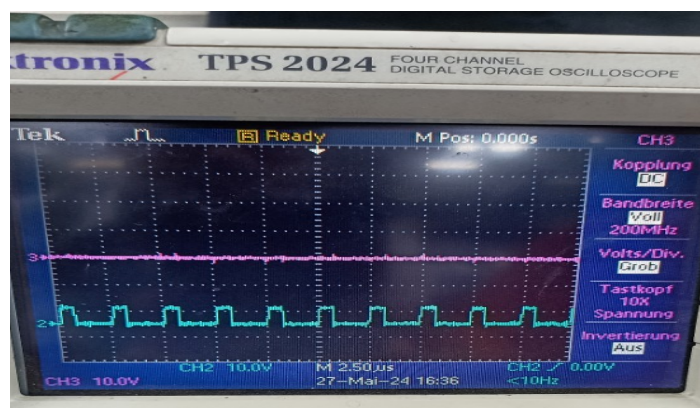
Table 9-3. MOSFET Operation

MODE	BUCK	BUCK-BOOST	BOOST
Q1	Switching	Switching	ON
Q2	Switching	Switching	OFF
Q3	OFF	Switching	Switching

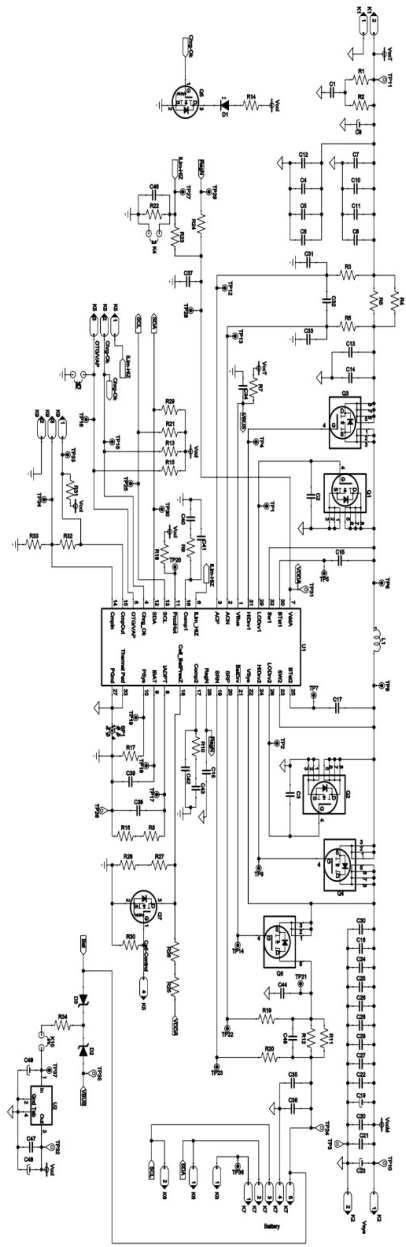
In this Boost operation Q2 should be OFF and Q3 should be Switching. We have captured gate signals and given below(CH3 – Q2 and Ch2 – Q3). **Why there is switching in Q2?**



When we increase charging current to 1536mA then it is working correctly as shown below.



REV	REVISION	DATE	REVISION	DATE	REV
01	01	01/01/2018	01	01/01/2018	01
02	02	01/01/2018	02	01/01/2018	02
03	03	01/01/2018	03	01/01/2018	03
04	04	01/01/2018	04	01/01/2018	04
05	05	01/01/2018	05	01/01/2018	05
06	06	01/01/2018	06	01/01/2018	06
07	07	01/01/2018	07	01/01/2018	07
08	08	01/01/2018	08	01/01/2018	08
09	09	01/01/2018	09	01/01/2018	09
10	10	01/01/2018	10	01/01/2018	10
11	11	01/01/2018	11	01/01/2018	11
12	12	01/01/2018	12	01/01/2018	12
13	13	01/01/2018	13	01/01/2018	13
14	14	01/01/2018	14	01/01/2018	14
15	15	01/01/2018	15	01/01/2018	15
16	16	01/01/2018	16	01/01/2018	16
17	17	01/01/2018	17	01/01/2018	17
18	18	01/01/2018	18	01/01/2018	18
19	19	01/01/2018	19	01/01/2018	19
20	20	01/01/2018	20	01/01/2018	20



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