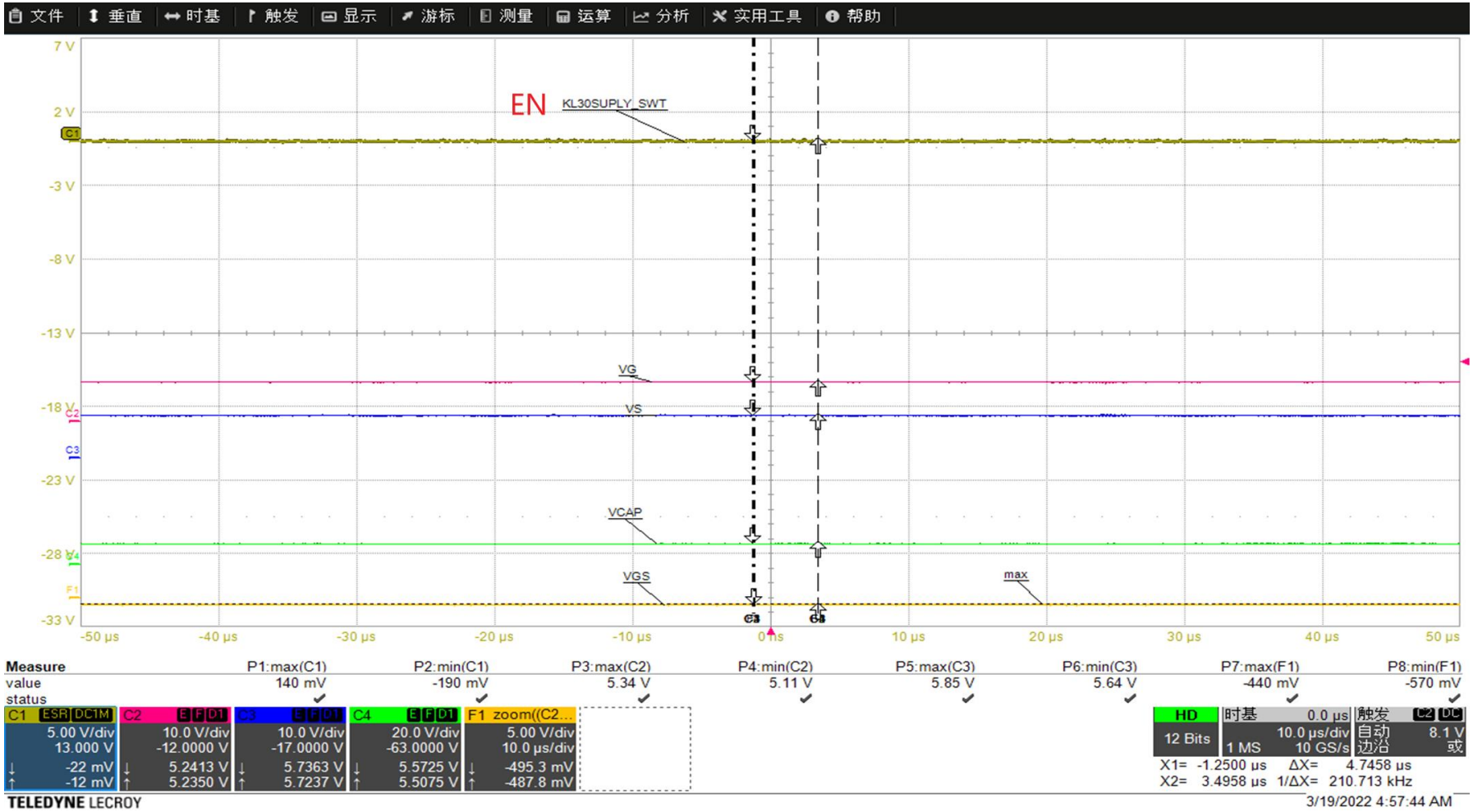
LM74700 Module test



	DATA1	DATA2	MAX	MIN	
MCUIO	0	0	0.14	-0.19	V
VS（Vanode）	5.74	5.72			V
VG（GATE）	5.24	5.24			V
VCAP	5.61	5.562			V
VGS	-0.5	-0.48	-0.44	-0.57	V
VCAP-VS	-0.13	-0.158			V

6 Specifications

6.1 Absolute Maximum Ratings

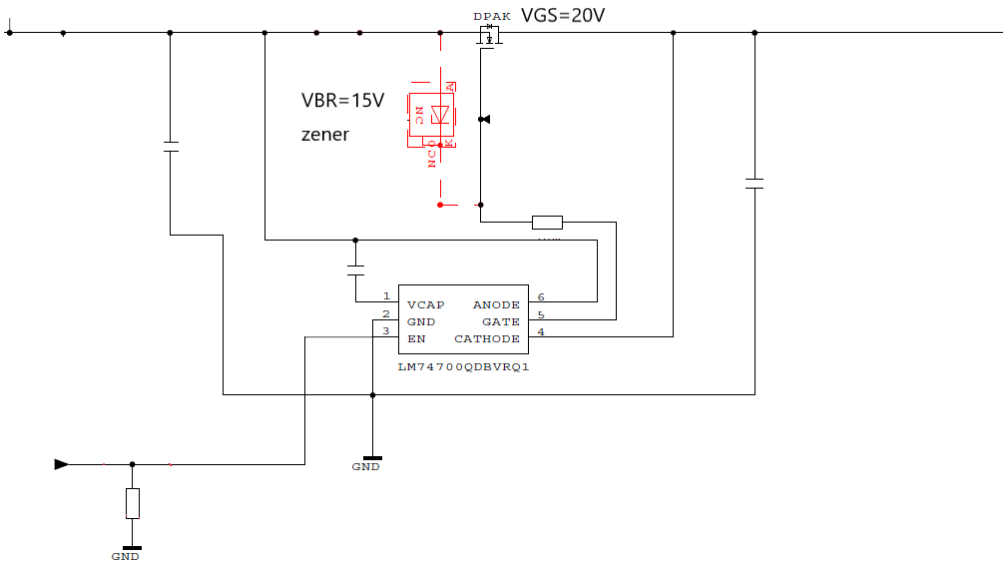
over operating free-air temperature range (unless otherwise noted)(1)

		MIN	MAX	UNIT
Input Pins	ANODE to GND	–65	65	V
	EN to GND, $V_{(ANODE)}$ > 0 V	–0.3	65	V
	EN to GND, $V_{(ANODE)}$ ≤ 0 V	$V_{(ANODE)}$	(65 + $V_{(ANODE)}$)	V
Output Pins	GATE to ANODE	–0.3	15	V
	VCAP to ANODE	–0.3	15	V
Output to Input Pins	CATHODE to ANODE	–5	75	V
Operating junction temperature(2)		–40	150	°C
Storage temperature, T_{stg}		–40	150	°C

According to the datasheet
Maxrating Gate to anode is about： -0.3V~15V

Q1： -0.3V？How does this value come from？If the Gate-anode＜-0.3V，what problem will it causes?

Q2： As the waveform shows when Vanode is 5.7V， EN=0， why the VGS is ＜-0.3V，about this what circuit or element should we do to solve this problem？



Q3：

Add one Zener which VBR=15V， please evaluate the feasibility of this circuit.

THX