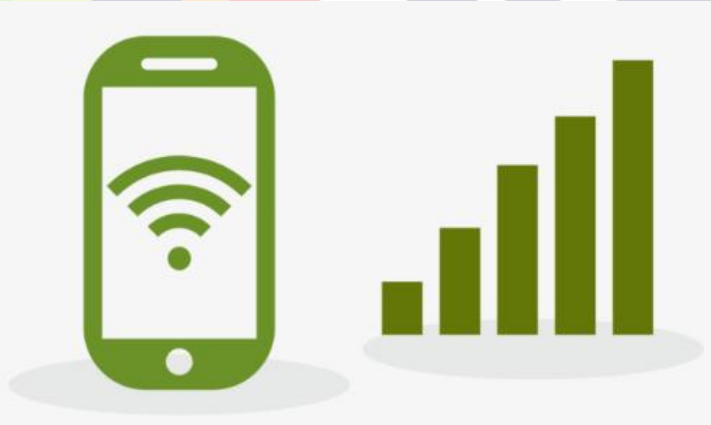
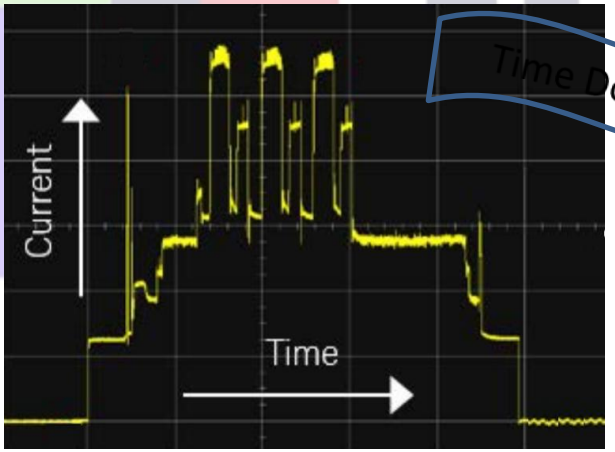
Verify TX power consumption of RF device

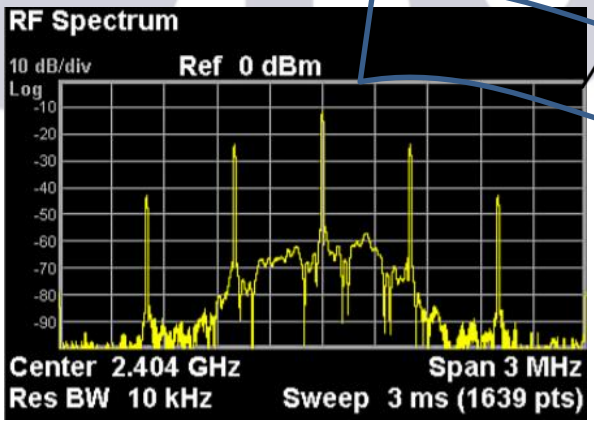


Analysis Solution

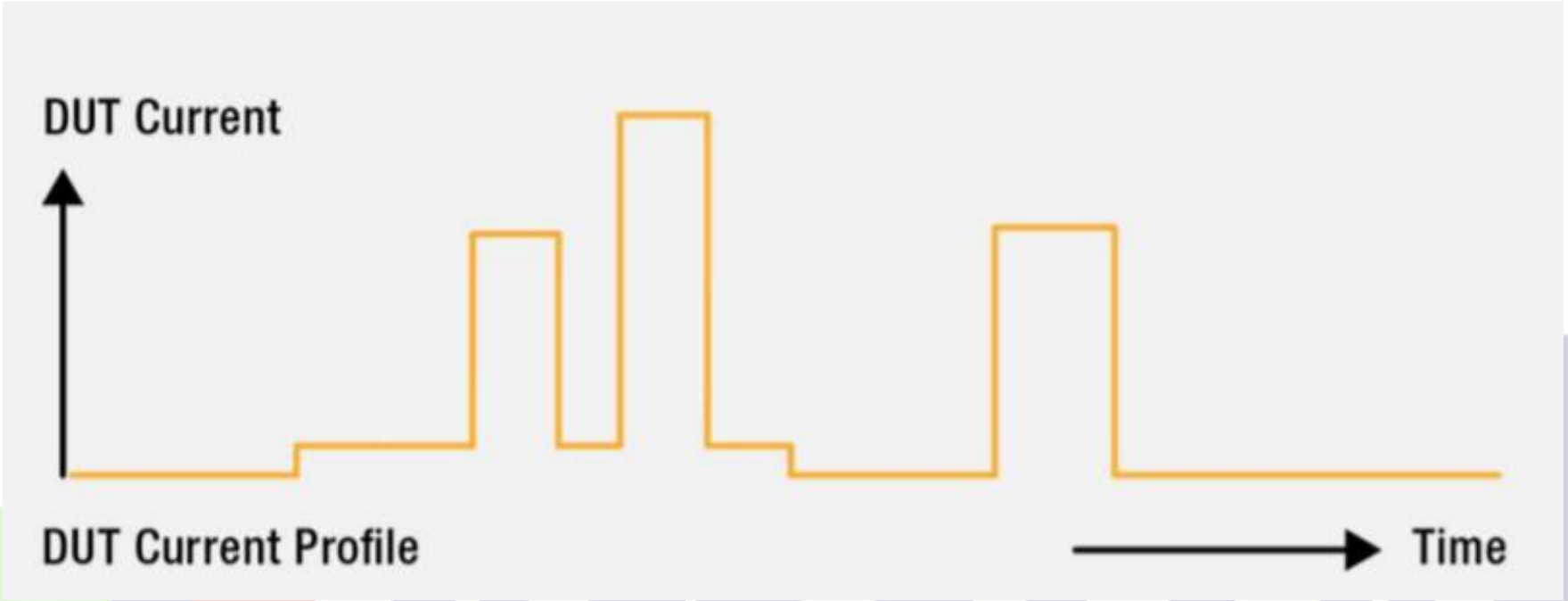
Time Domain	Scope	Voltage Current
Frequency Domain	Spectrum	Power Harmonics

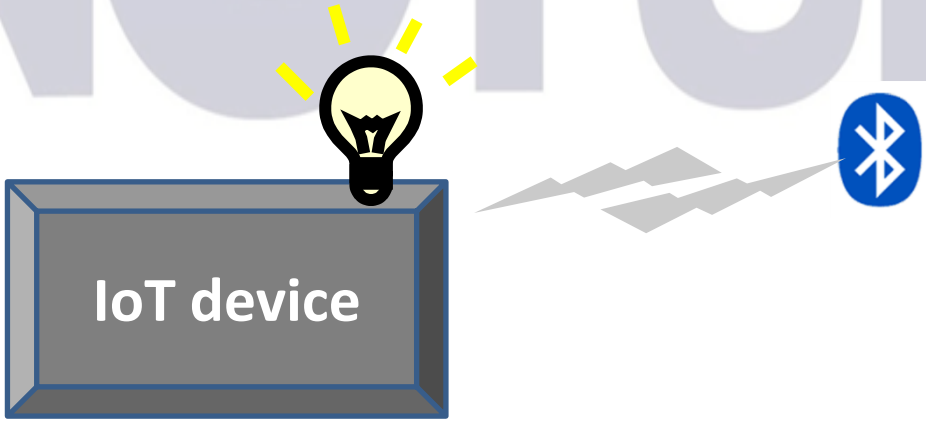


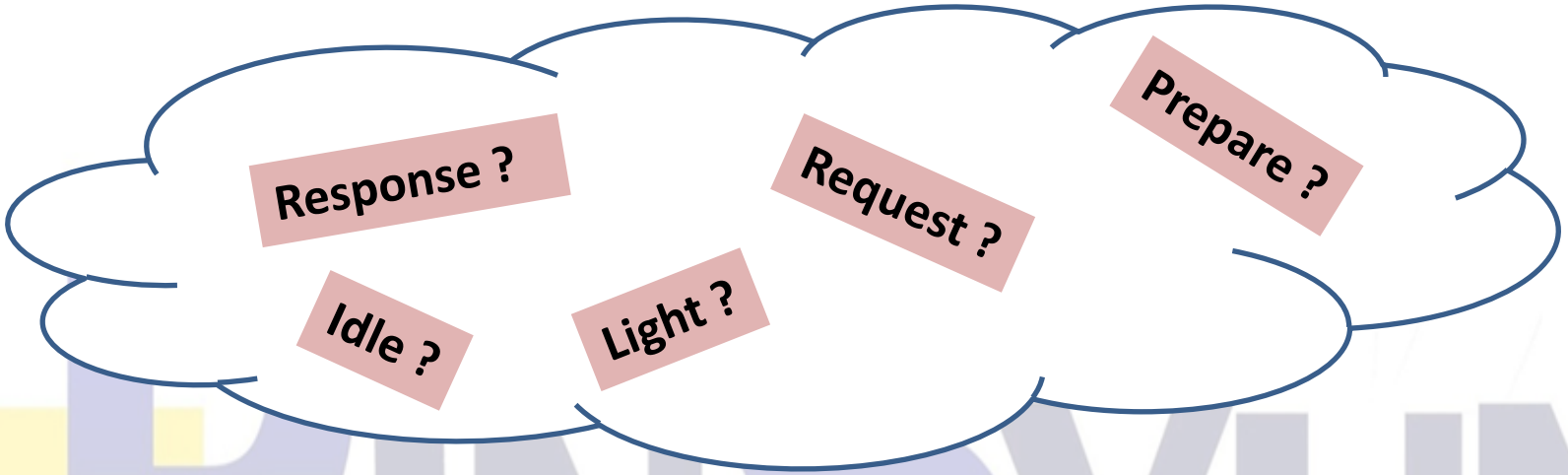
Time Domain

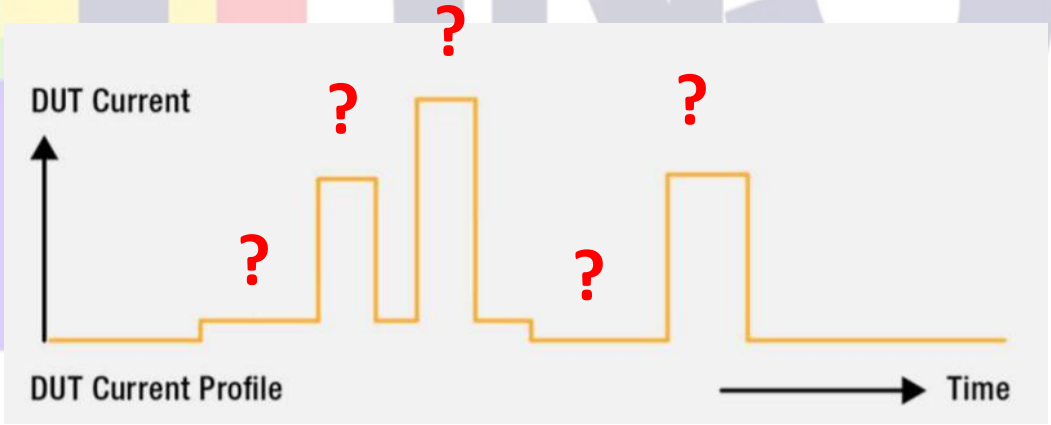


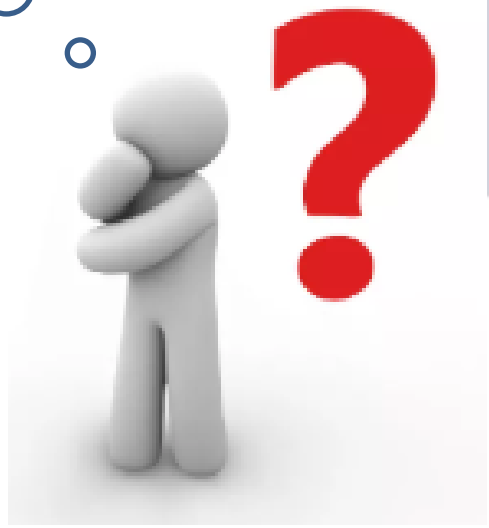
Domain

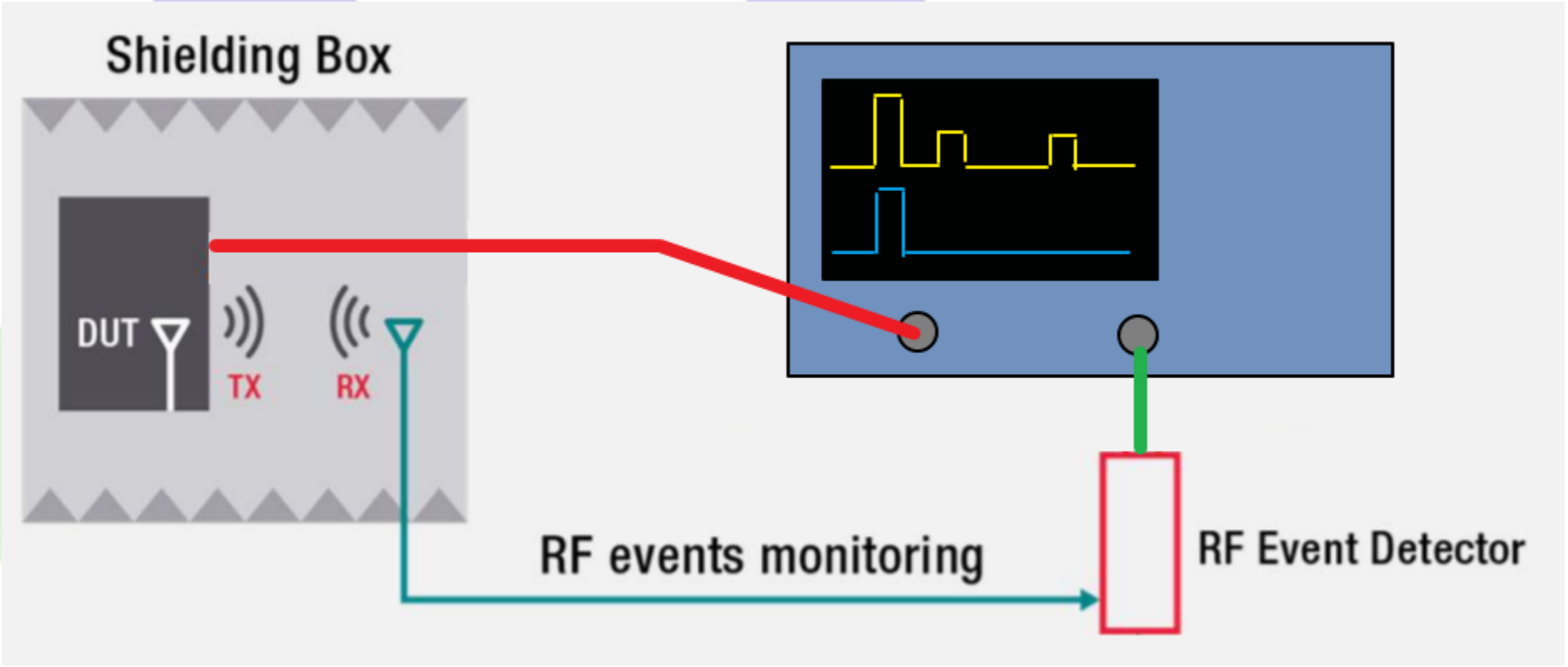

DUT Current
DUT Current Profile
Time

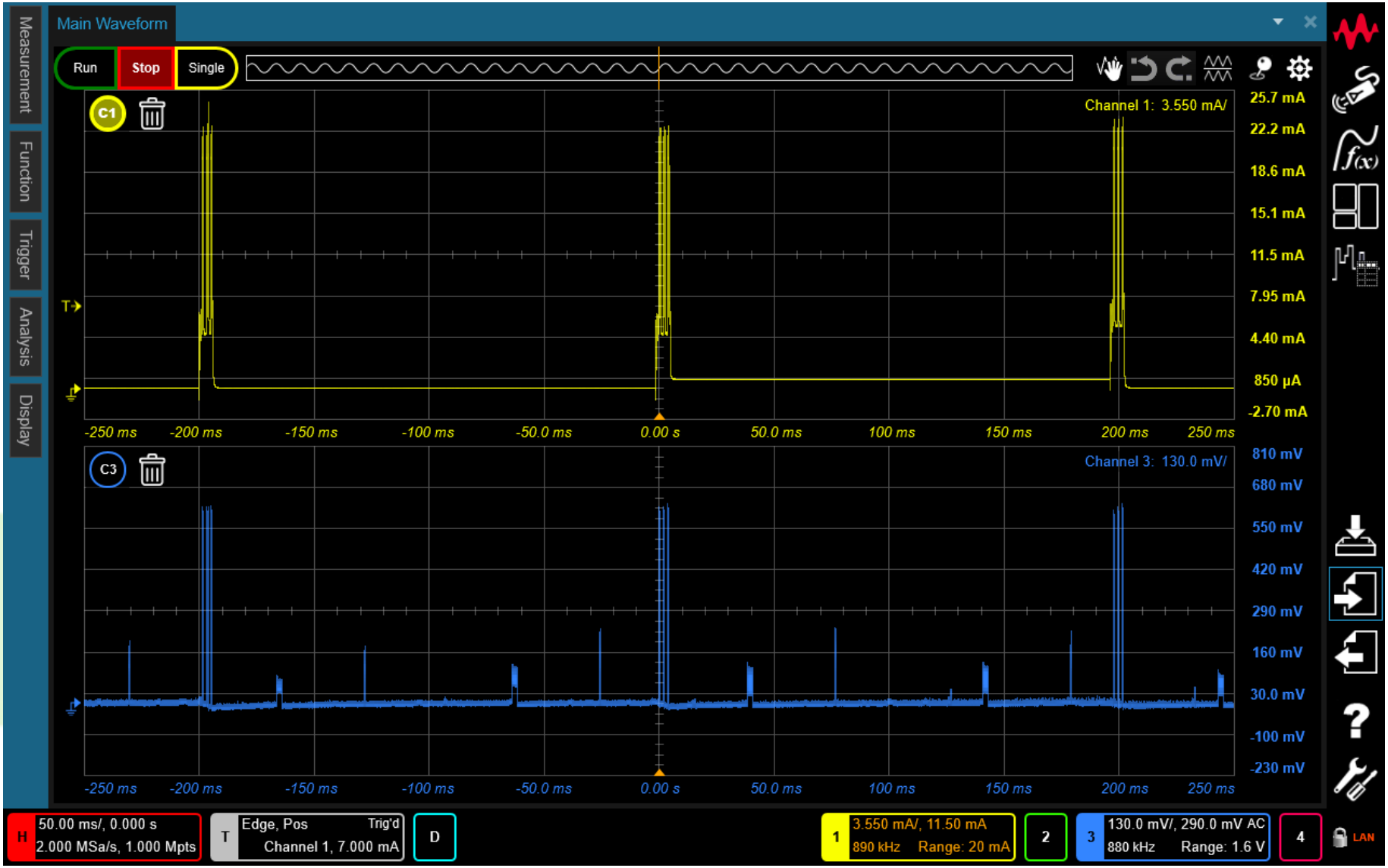

IoT device

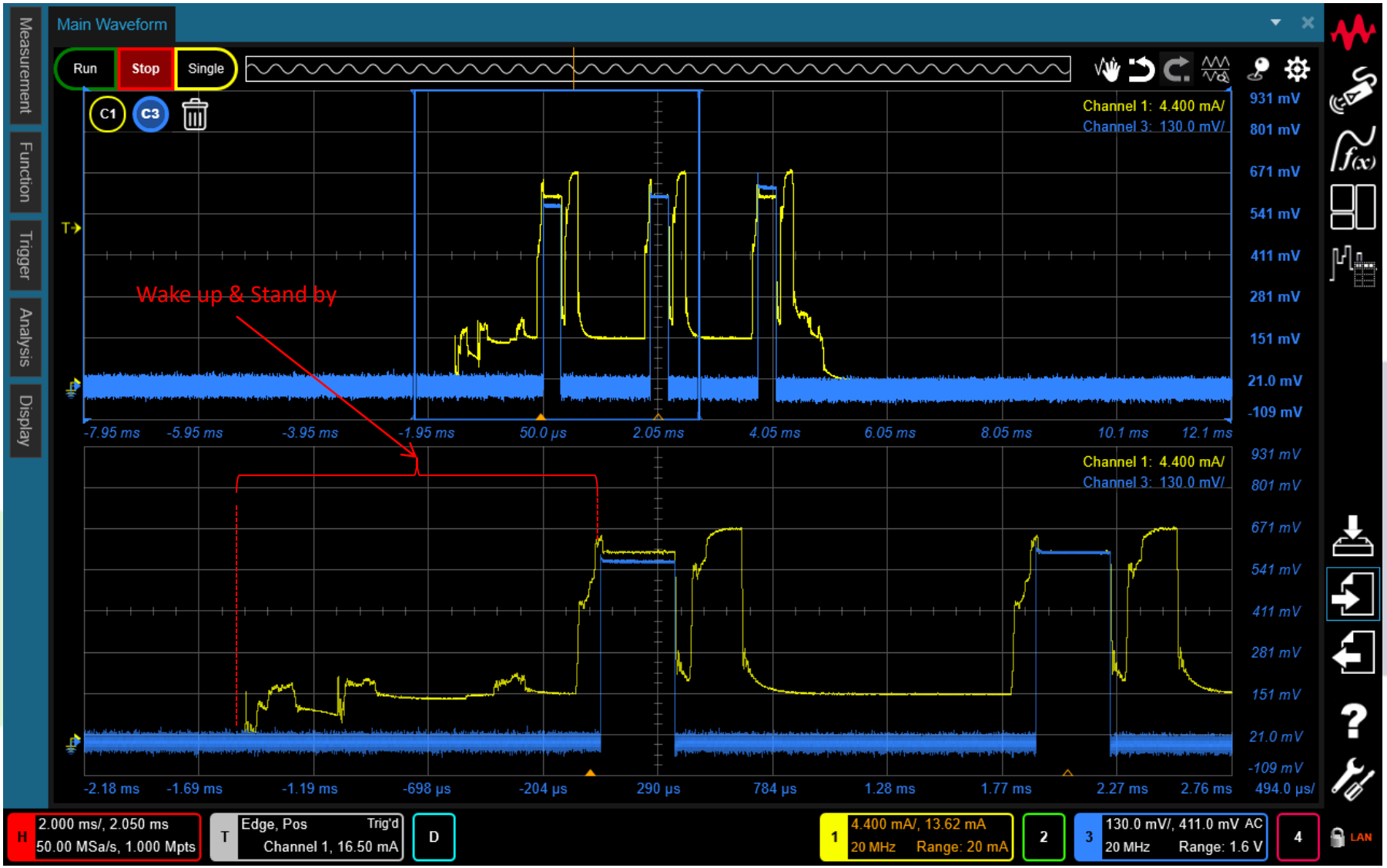

Response ?
Request ?
Prepare ?
Idle ?
Light ?

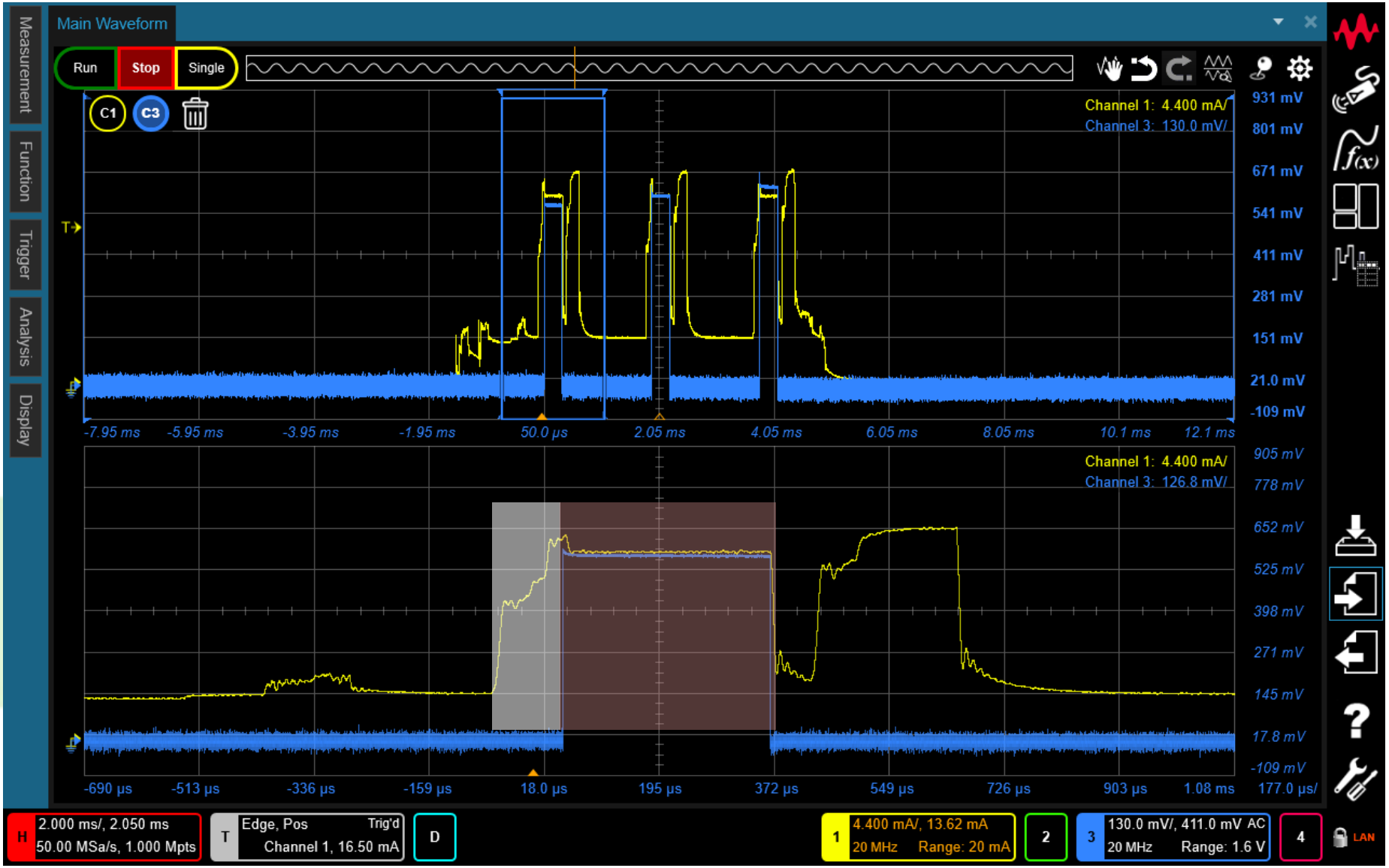

DUT Current
DUT Current Profile
Time




Shielding Box
DUT
TX
RX
RF events monitoring
RF Event Detector



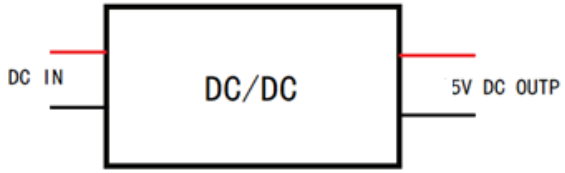




Automatic measurement

Check quality of DC-DC converter

DC IN: 18-36V
DC OUT: 5V



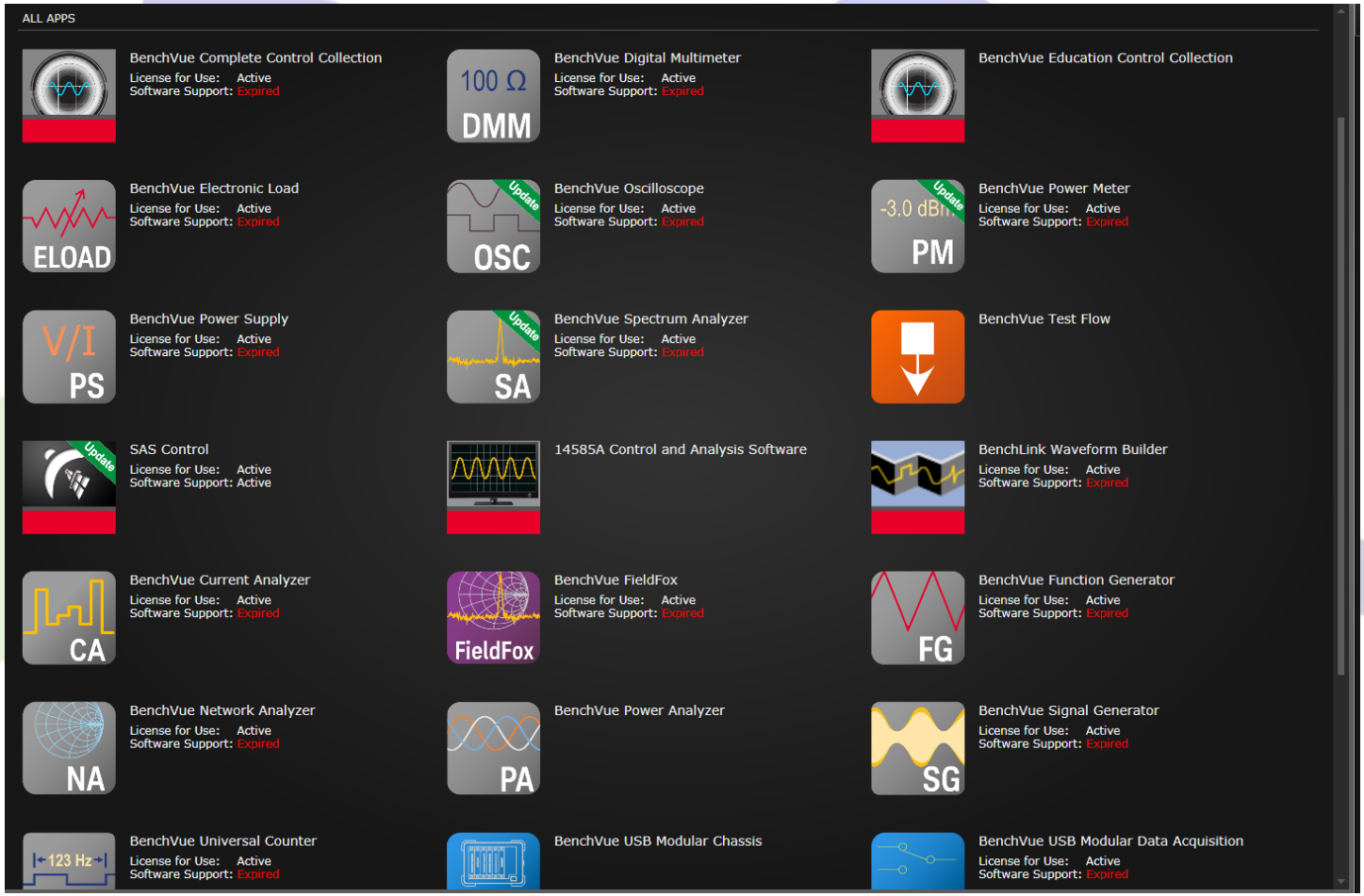
Parameters Set		Measure Result									
Vs Set	Iload Set	Vin (V)	Curr In	Powe Inp	Vout	Curr Load (A)	Power Outp	Eff %	Temperature	Vrms	Vpk-pk
18	0.5										
18	1										
18	2										
18	3										
24	0.5										
24	1										
24	2										
24	3										
36	0.5										
36	1										
36	2										
36	3										

Loop

3 (Vs) * 4 (Iload) * 10 (mesure) = 120 !!

BenchVue Software

Control. Automate. Simplify.



GPIB

USB

LAN

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BenchVue
Supported Instruments

Data acquisition units (4)

34970A
34972A
DAQ970A
34980A

Digital multimeters (10)

34401A,34405A, 34410A, 34411A, 34420A[1], 34450A[1], 34460A[1], 34461A[1], 34465A[1], 34470A[1]

Network analyzers (45)

ENA E50xxA/B/C (5)
PNA N522xA/B (10)
PNA-L N523A/B/C (11)
PNA-X N524xA/B (12)
PXI VNAs
M937xA (6)
PXIe multiport VNA
M9485A

USB modular devices (21)

U2300 Series[1]
U2500 Series[1]
U2600 Series[1]
U2700 Series[1]

Power meters/ sensors (33)

U2021XA[1]
U2022XA[1]
U2041XA[1]
U2042XA[1]
U2043XA[1]
U2044XA[1]
U2049XA LAN[1]
U2000 Series[1] (9)
U2053/63 Series[1]
L2050/60 Series[1] (6)
U848x Series[1] (4)
N191xA[1] (4)
N8262A[1]

Current Analyzers (2)

CX3322A
CX3324A

LCR Meters (2)

E4980A
E4980AL

Function generators (19)

332x0A (3)
33500 Series[1] (10)
33600 Series[1] (4)
81150A
81160A

Power analyzers (2)

PA2201A
PA2203A

Signal generators (14)

E4428C
E4438C
E8257D
E8267D
E8663D
EXG X-Series
N517xB (3)
MXG X-Series
N518xB (3)
N518xA (3)

Power supplies/SMUs (168)

B2900 Series[1] (4)
B2961A/62A[1]
E3600 Series (14)
E36100 Series[1] (10)
E36300 Series[1] (4)
N5700 Series[1] (24)
N6700A/B/C[1]
N6701A/C[1]
N6702A/C[1]
N6705A/B/C[1]
N6785A[1]
N6786A[1]
N6900 Series[1] (12)
N7900 Series[1] (12)
N8700 Series[1] (21)
N8900 Series[1] (36)
RP7900 Series (17)

Spectrum/signal analyzers (30)

X-Series
N9040B UXA
N9030A/B PXA
N9020A/B MXA
N9010A/B EXA
N9000A/B CXA
M9290A CXA
HSA N934xC (3)
ESA E440xB (4)
PSA E444x (6)
BSA N932xB/C (2)

Electronic loads (4)

N3300A[1]
N3301A[1]
6060B
6063B

FieldFox analyzers (22)

N9912A-N9918A (6)
N9923A-N9928A (4)
N9935A-N9938A (4)
N9950A-N9952A (3)
N9960A-N9962A (3)

Oscilloscopes (218)

1000-X Series[1] (4)
2000-X Series[1] (12)
3000-X Series[1] (18)
3000T Series [1] (20)
4000-X Series[1] (16)
5000 (5)
6000A Series (16)
6000L Series (3)
6000-X Series[1] (4)
7000 Series (28)
9000 Series (8)
90000 (6)
90000 Q-Series (5)
90000 X-Series (12)
90000 DSA Series (16)
P924xA Series (3)
S Series (14)
V Series (18)
Z Series (10)

Counters (3)

53210A[1]
53220A[1]
53230A[1]

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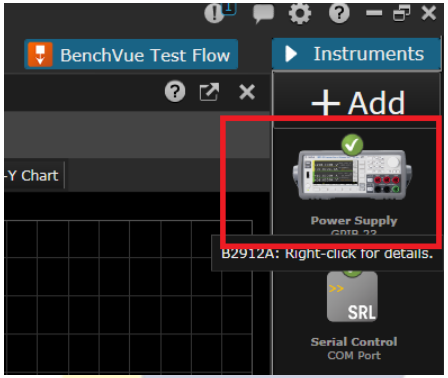
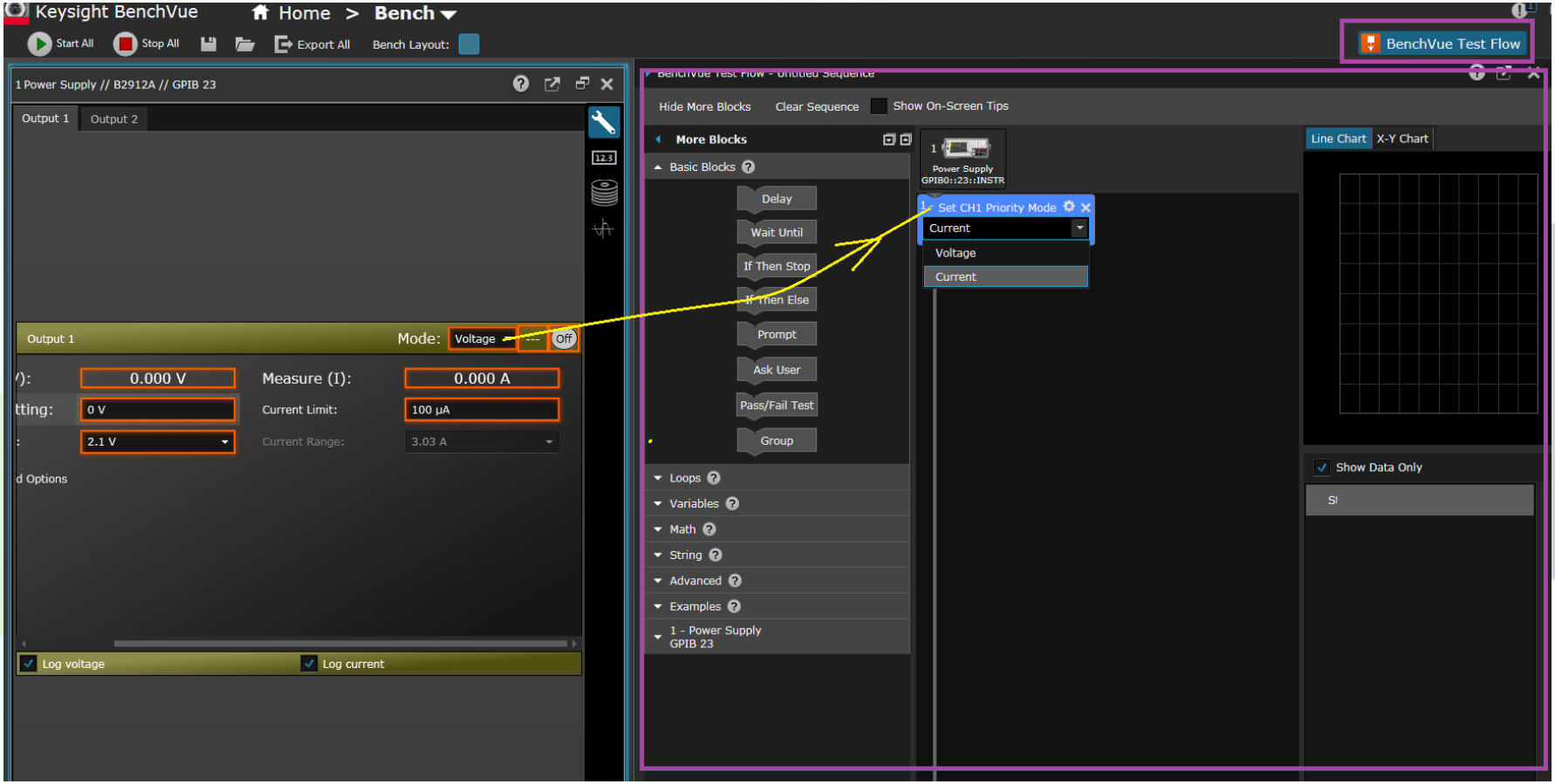
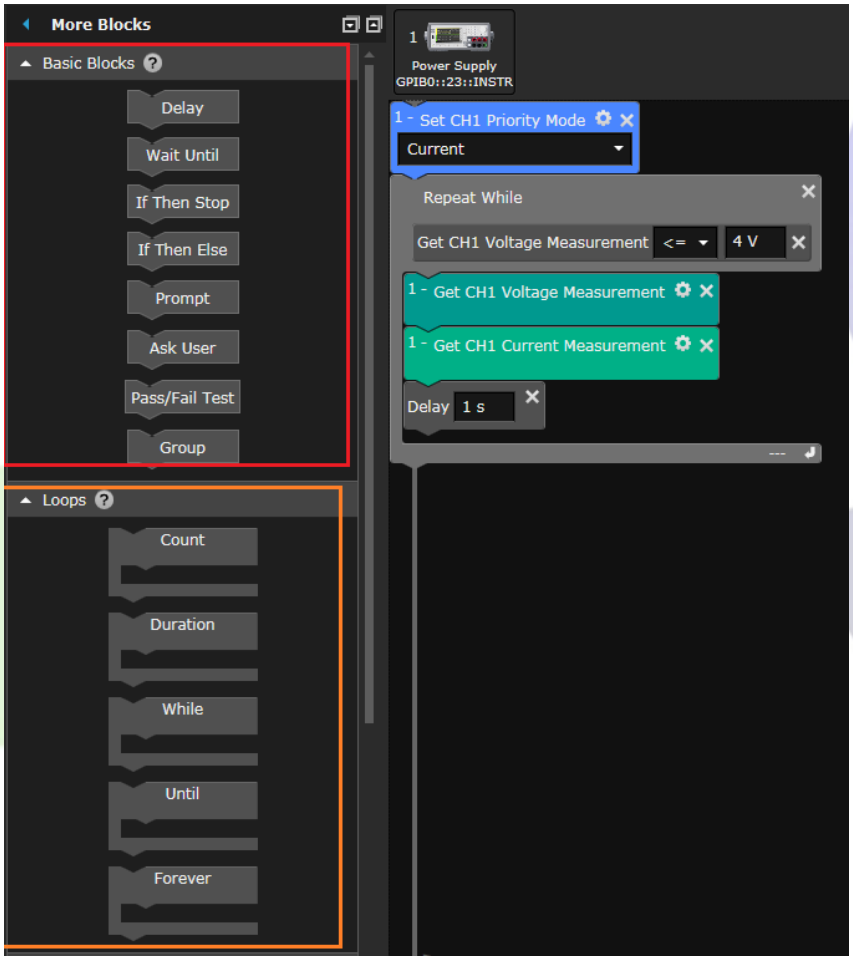
Easy connection and control

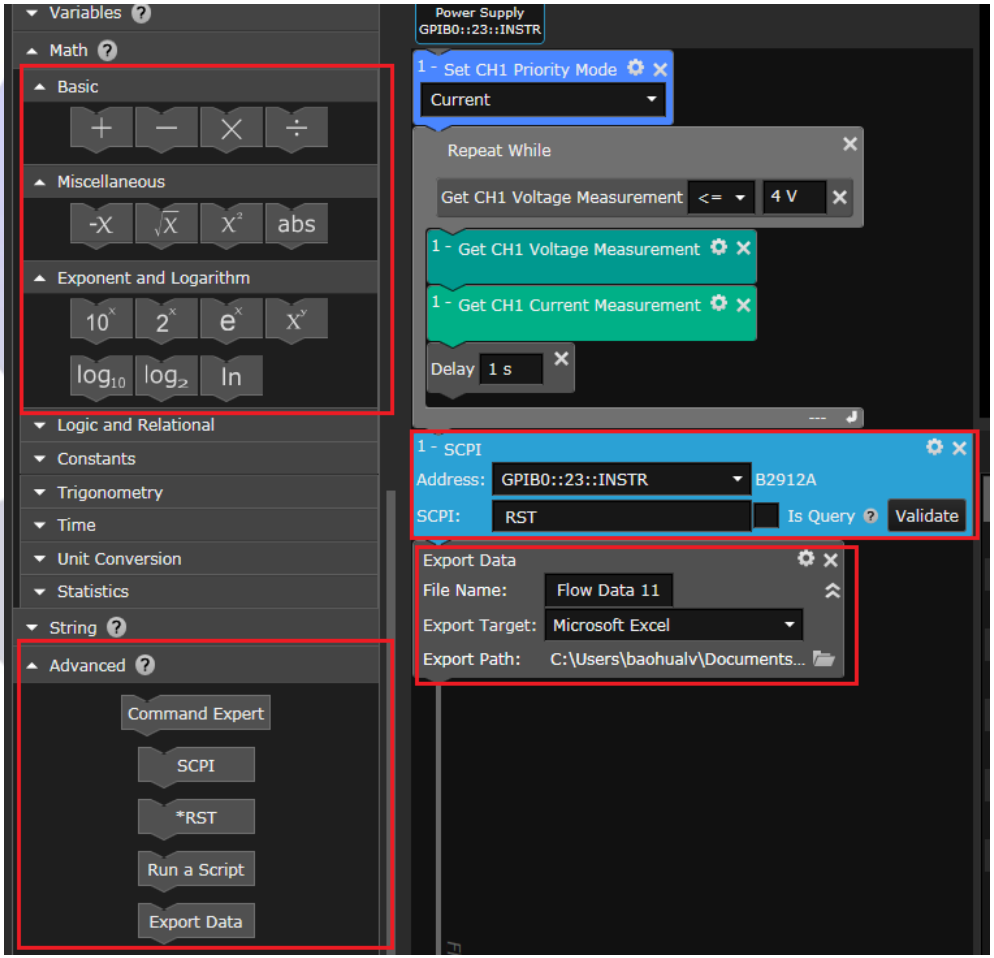


Test Flow- easy setting



Test Flow- advance function





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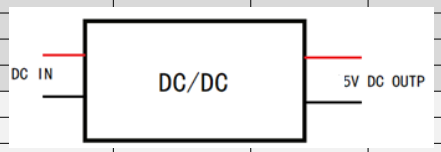
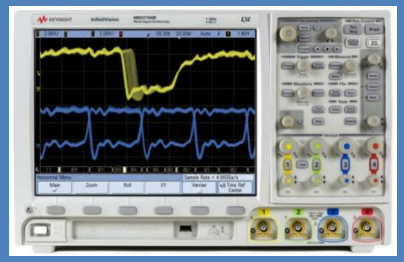
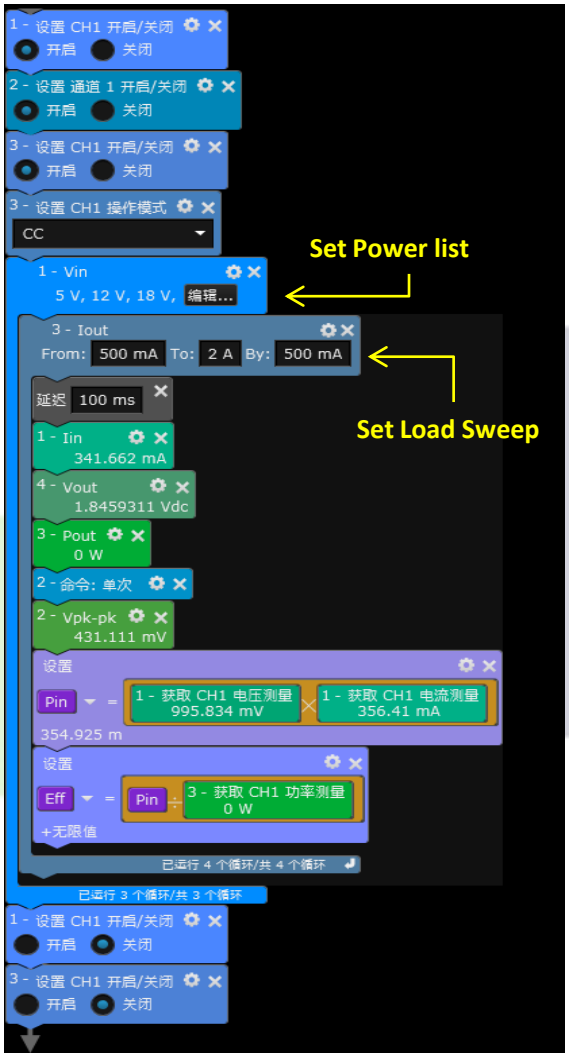
Get DC-DC measurement

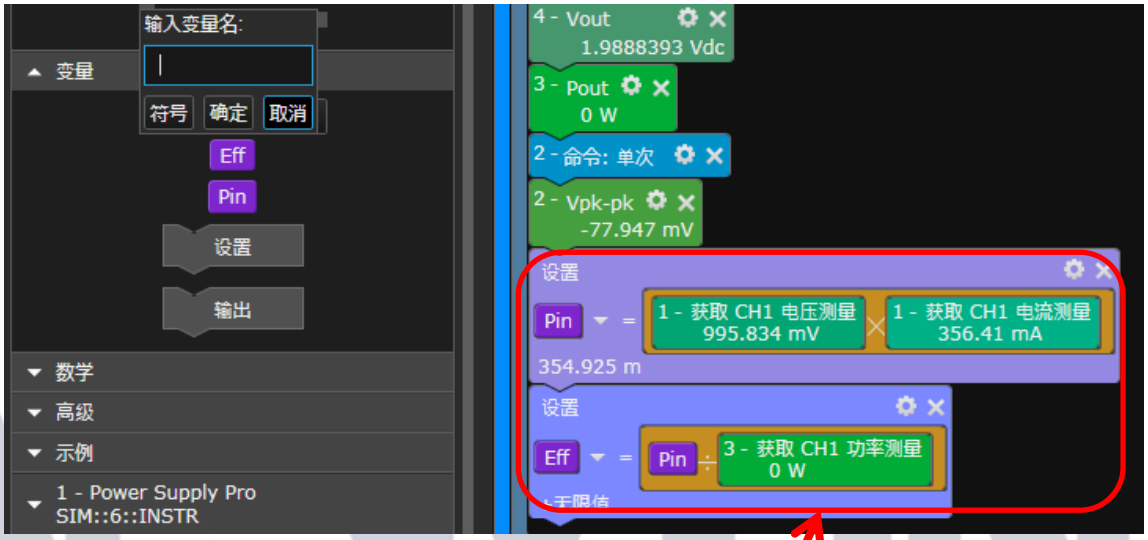
Parameters Set		Measure Result									
Vs Set	Iload Set	Vin (V)	Curr In	Powe Inp	Vout	Curr Load (A)	Power Outp	Eff %	Temperature	Vrms	Vpk-pk
18	0.5										
18	1										
18	2										
18	3										
24	0.5										
24	1										
24	2										
24	3										
36	0.5										
36	1										
36	2										
36	3										





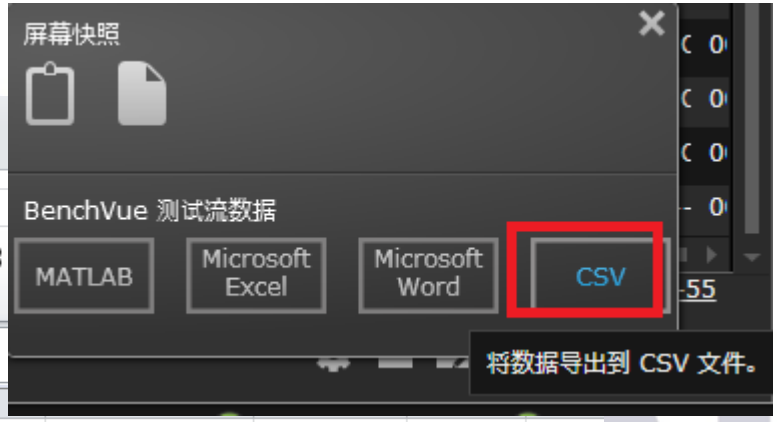
Setup DC-DC measurement





Auto calculate: **Eff = Pout / Pin**

Measurement Report



	A	B	C	D	E	F	G	H	I	J
1	序列中的仪器	1 - N8762A - SIM::6::INSTR								
2	序列中的仪器	2 - DSO-X 2024A - SIM::9::INSTR								
3	序列中的仪器	3 - N3300A - SIM::5::INSTR								
4	序列中的仪器	4 - 34470A - SIM::8::INSTR								
5										
6	Start Time	31:51.2								
7	Stop Time	31:57.8								
8										
9	Time	Step	Voltage Se	Current Set	Current Measureme	Measurement Value (V	ower Measuren	easurement "Pk-Pk(1)	(W)	(V)
10	31:52.9	1	5	0.5	0.01	0.419434869	0	-0.113321266	0.121	0
11	31:53.3	2	5	1	0.11	0.675352352	0	0.287300264	0.165056824	0
12	31:53.7	3	5	1.5	0.151421356	1.123224126	0	-0.057743102	0.197897885	0
13	31:54.1	4	5	2	0.183205081	0.181700137	0	0.307053977	0.224793562	0
14	31:54.6	5	12	0.5	0.21	1.432130438	0	-0.07105219	0.247807624	0
15	31:55.0	6	12	1	0.233606798	1.880002212	0	0.430332416	0.268009864	0
16	31:55.5	7	12	1.5	0.254948974	0.519828276	0	0.323179252	0.286042633	0
17	31:55.9	8	12	2	0.274575131	0.96770005	0	0.047691649	0.302329007	0
18	31:56.5	9	18	0.5	0.292842712	0.962180512	0	-0.345105141	0.317166067	0
19	31:56.9	10	18	1	0.31	0.631260759	0	-0.174719194	0.330772505	0
20	31:57.3	11	18	1.5	0.326227766	0.276574006	0	-0.18580043	0.343315243	0
21	31:57.8	12	18	2	0.341662479	1.335050016	0	-0.322190314	0.354925405	0
22										

Thanks for your attention!!

新產品推廣！LoRa / IoT好夥伴！

CXG — 品質可靠，值得信賴

- 採用了與 X 系列中高端產品一致的軟硬件設計體系 EXG
- 為通用市場和前沿 IoT 市場優化了配置
- SCPI 編程代碼與所有 Agilent/Keysight 信號源產品兼容

作為一款經濟型、高性價比的射頻矢量信號源，N5166B CXG 也是 X- 系列信號源產品線的入門級產品，主要覆蓋通用測試、模塊功能驗證、整機測試以及小規模製造等長尾市場。

預約以下機型之介紹，即可獲得摺疊旅行袋
下單還送全新六位半電錶或國際牌音波電動牙刷!!

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新推出！USB 示波器/VNA

元件電流波型分析儀

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資料擷取系統/電錶類

3 通道/雙通道電源供應器

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