[Header]

bq EVSW Version = 0.9.80

DeviceName = bq20z655-R1 v0.03

Time = 8/11/2020 2:13:49 PM

[Voltage(1st Level Safety)]

LT COV Threshold = 4300

LT COV Recovery = 4100

ST COV Threshold = 4500

ST COV Recovery = 4300

HT COV Threshold = 4200

HT COV Recovery = 4000

COV Time = 0

CUV Threshold = 2200

CUV Time = 0

CUV Recovery = 3000

[Current(1st Level Safety)]

OC (1st Tier) Chg = 5500

OC (1st Tier) Chg Time = 0

OC Chg Recovery = 200

OC (1st Tier) Dsg = 18000

OC (1st Tier) Dsg Time = 0

OC Dsg Recovery = 200

OC (2nd Tier) Chg = 7700

OC (2nd Tier) Chg Time = 0

OC (2nd Tier) Dsg = 22000

OC (2nd Tier) Dsg Time = 0

Current Recovery Time = 8

AFE OC Dsg = 12

AFE OC Dsg Time = 0F

AFE OC Dsg Recovery = 5

AFE SC Chg Cfg = 77

AFE SC Dsg Cfg = 77

AFE SC Recovery = 1

[Temperature(1st Level Safety)]

OT1 Chg Threshold = 55.0

OT1 Chg Time = 2

OT1 Chg Recovery = 50.0

OT2 Chg Threshold = 255.0

OT2 Chg Time = 2

OT2 Chg Recovery = 255.0

OT1 Dsg Threshold = 60.0

OT1 Dsg Time = 0

OT1 Dsg Recovery = 55.0

OT2 Dsg Threshold = 255.0

OT2 Dsg Time = 0

OT2 Dsg Recovery = 255.0

Hi Dsg Start Temp = 120.0

[Host Comm(1st Level Safety)]

Host Watchdog Timeout = 0

[Voltage(2nd Level Safety)]

LT SOV Threshold = 4400

ST SOV Threshold = 4600

HT SOV Threshold = 4500

SOV Time = 0

PF SOV Fuse Blow Delay = 0

SUV Threshold = 2200

SUV Time = 0

Rest CIM Current = 10

Rest CIM Fail Voltage = 300

Rest CIM Time = 0

CIM Battery Rest Time = 30

Rest CIM Check Voltage = 3000

Active CIM Fail Voltage = 400

Active CIM Time = 0

Active CIM Check Voltage = 3000

PFIN Detect Time = 0

PF Min Fuse Blow Voltage = 8000

[Current(2nd Level Safety)]

SOC Chg = 10000

SOC Chg Time = 0

SOC Dsg = 10000

SOC Dsg Time = 0

[Temperature(2nd Level Safety)]

SOT1 Chg Threshold = 65.0

SOT1 Chg Time = 0

SOT2 Chg Threshold = 65.0

SOT2 Chg Time = 0

SOT1 Dsg Threshold = 75.0

SOT1 Dsg Time = 0

SOT2 Dsg Threshold = 75.0

SOT2 Dsg Time = 0

Open Thermistor = -33.3

Open Time = 0

[FET Verification(2nd Level Safety)]

FET Fail Limit = 20

FET Fail Time = 0

[AFE Verification(2nd Level Safety)]

AFE Check Time = 0

AFE Fail Limit = 0

AFE Fail Recovery Time = 20

AFE Init Retry Limit = 6

AFE Init Limit = 20

[Fuse Verification(2nd Level Safety)]

Fuse Fail Limit = 2

Fuse Fail Time = 0

[Charge Temp Cfg(Charge Control)]

JT1 = 0.0

JT2 = 12.0

JT2a = 30.0

JT3 = 45.0

JT4 = 55.0

Temp Hys = 1.0

[Pre-Charge Cfg(Charge Control)]

Pre-chg Voltage Threshold = 3000

Pre-chg Recovery Voltage = 3100

Pre-chg Current = 250

[Charge Cfg(Charge Control)]

LT Chg Voltage = 12000

LT Chg Current1 = 250

LT Chg Current2 = 250

LT Chg Current3 = 250

ST1 Chg Voltage = 16800

ST1 Chg Current1 = 4000

ST1 Chg Current2 = 4000

ST1 Chg Current3 = 4000

ST2 Chg Voltage = 16800

ST2 Chg Current1 = 4000

ST2 Chg Current2 = 4000

ST2 Chg Current3 = 4000

HT Chg Voltage = 16760

HT Chg Current1 = 1100

HT Chg Current2 = 1100

HT Chg Current3 = 1100

Cell Voltage Threshold1 = 3900

Cell Voltage Threshold2 = 4000

Cell Voltage Thresh Hys = 10

[Termination Cfg.(Charge Control)]

Maintenance Current = 0

Taper Current = 110

Taper Voltage = 75

Current Taper Window = 40

TCA Set % = -1

TCA Clear % = 95

FC Set % = -1

FC Clear % = 98

[Cell Balancing Cfg(Charge Control)]

Min Cell Deviation = 1350

[Charging Faults(Charge Control)]

Over Charging Voltage = 500

Over Charging Volt Time = 2

Over Charging Current = 500

Over Charging Curr Time = 2

Over Charging Curr Recov = 100

Depleted Voltage = 8000

Depleted Voltage Time = 2

Depleted Recovery = 8500

Over Charge Capacity = 300

Over Charge Recovery = 2

CMTO = 10800

PCMTO = 3600

Charge Fault Cfg = 00

[External Charge Control(Charge Control)]

Chg Inhibit Threshold = 0

Chg Inhibit Hold Time = 0

[Data(SBS Configuration)]

Rem Cap Alarm = 300

Rem Energy Alarm = 4320

Rem Time Alarm = 10

Init Battery Mode = 0081

Design Voltage = 14800

Spec Info = 0033

Manuf Date = 07-Jul-2020

Ser. Num. = 4722

Cycle Count = 6

CC Threshold = 500

CC % = 45

CF MaxError Limit = 100

Design Capacity = 1100

Design Energy = 16280

Manuf Name = SYNT

Device Name = 300

Device Chemistry = LION

[Configuration(SBS Configuration)]

TDA Set % = 6

TDA Clear % = 8

FD Set % = 2

FD Clear % = 5

TDA Set Volt Threshold = 5000

TDA Set Volt Time = 5

TDA Clear Volt = 5500

FD Set Volt Threshold = 5000

FD Volt Time = 5

FD Clear Volt = 5500

[Manufacturer Data(System Data)]

Pack Lot Code = 0010

PCB Lot Code = 0010

Firmware Version = 0013

Hardware Revision = 0011

Cell Revision = 0010

[Manufacturer Info(System Data)]

Manuf. Info 0 = 0123456789ABCDEF0123456789ABCDE

Manuf. Block 1 = 0123456789ABCDEF0123

Manuf. Block 2 = 0123456789ABCDEF0123

Manuf. Block 3 = 0123456789ABCDEF0123

[Lifetime Data(System Data)]

Lifetime Max Temp = 62.2

Lifetime Min Temp = -36.2

Lifetime Max Cell Voltage = 4597

Lifetime Min Cell Voltage = -760

Lifetime Max Pack Voltage = 16822

Lifetime Min Pack Voltage = -2972

Lifetime Max Chg Current = 5842

Lifetime Max Dsg Current = -28616

Lifetime Max Chg Power = 51150

Lifetime Max Dsg Power = -327550

Life Max AvgDsg Cur = -7927

Life Max AvgDsg Pow = -11626

Life Avg Temp = 24.8

[Lifetime Temp Samples(System Data)]

LT Temp Samples = 7730

[Registers(Configuration)]

Operation Cfg A = 0328

Operation Cfg B = 2C48

Operation Cfg C = 1570

Permanent Fail Cfg = 0000

Permanent Fail Cfg 2 = 0000

Non-Removable Cfg = 0000

[AFE(Configuration)]

AFE.State\_CTL = 00

SMB Sync Command = FF

SMB Sync Delay = 50

[LED Cfg(LED Support)]

LED Flash Period = 400

LED Blink Period = 2000

LED Delay = 100

LED Hold Time = 4

CHG Flash Alarm = 95

CHG Thresh 1 = 26

CHG Thresh 2 = 41

CHG Thresh 3 = 56

CHG Thresh 4 = 71

CHG Thresh 5 = 86

DSG Flash Alarm = 26

DSG Thresh 1 = 0

DSG Thresh 2 = 41

DSG Thresh 3 = 56

DSG Thresh 4 = 71

DSG Thresh 5 = 86

Sink Current = 3

LCD Freq = 35

[Power(Power)]

Flash Update OK Voltage = 7500

Shutdown Voltage = 15200

Shutdown Time = 240

Cell Shutdown Voltage = 3770

Cell Shutdown Time = 240

Charger Present = 12000

Sleep Current = 75

Bus Low Time = 5

Cal Inhibit Temp Low = 5.0

Cal Inhibit Temp High = 45.0

Sleep Voltage Time = 45

Sleep Current Time = 15

Wake Current Reg = 50

Sealed Ship Delay = 5

[IT Cfg(Gas Gauging)]

Load Select = 6

Load Mode = 1

Term Voltage = 12000

User Rate-mA = -9000

User Rate-mW = -200000

Reserve Cap-mAh = 0

Reserve Cap-mWh = 0

Ra Max Delta = 44

Max IR Correct = 400

Transient Factor Charge = 180

Transient Factor Discharge = 180

[Current Thresholds(Gas Gauging)]

Dsg Current Threshold = 100

Chg Current Threshold = 160

Quit Current = 10

Dsg Relax Time = 1

Chg Relax Time = 6

[State(Gas Gauging)]

Qmax Cell 0 = 1100

Qmax Cell 1 = 1100

Qmax Cell 2 = 1100

Qmax Cell 3 = 1100

Qmax Pack = 1100

Update Status = 06

Cell 0 Chg dod at EoC = 0

Cell 1 Chg dod at EoC = 0

Cell 2 Chg dod at EoC = 0

Cell 3 Chg dod at EoC = 0

Avg I Last Run = -7927

Avg P Last Run = -11626

Delta Voltage = 38

Max Avg I Last Run = -11918

Max Avg P Last Run = -17238

[R\_a0(Ra Table)]

Cell0 R\_a flag = 0055

Cell0 R\_a 0 = 6

Cell0 R\_a 1 = 7

Cell0 R\_a 2 = 11

Cell0 R\_a 3 = 10

Cell0 R\_a 4 = 9

Cell0 R\_a 5 = 7

Cell0 R\_a 6 = 9

Cell0 R\_a 7 = 8

Cell0 R\_a 8 = 8

Cell0 R\_a 9 = 7

Cell0 R\_a 10 = 6

Cell0 R\_a 11 = 6

Cell0 R\_a 12 = 9

Cell0 R\_a 13 = 40

Cell0 R\_a 14 = 116

[R\_a1(Ra Table)]

Cell1 R\_a flag = 0000

Cell1 R\_a 0 = 6

Cell1 R\_a 1 = 7

Cell1 R\_a 2 = 11

Cell1 R\_a 3 = 10

Cell1 R\_a 4 = 9

Cell1 R\_a 5 = 7

Cell1 R\_a 6 = 9

Cell1 R\_a 7 = 8

Cell1 R\_a 8 = 8

Cell1 R\_a 9 = 7

Cell1 R\_a 10 = 6

Cell1 R\_a 11 = 6

Cell1 R\_a 12 = 9

Cell1 R\_a 13 = 40

Cell1 R\_a 14 = 116

[R\_a2(Ra Table)]

Cell2 R\_a flag = 0055

Cell2 R\_a 0 = 6

Cell2 R\_a 1 = 7

Cell2 R\_a 2 = 11

Cell2 R\_a 3 = 10

Cell2 R\_a 4 = 9

Cell2 R\_a 5 = 7

Cell2 R\_a 6 = 9

Cell2 R\_a 7 = 8

Cell2 R\_a 8 = 8

Cell2 R\_a 9 = 7

Cell2 R\_a 10 = 6

Cell2 R\_a 11 = 6

Cell2 R\_a 12 = 9

Cell2 R\_a 13 = 40

Cell2 R\_a 14 = 116

[R\_a3(Ra Table)]

Cell3 R\_a flag = 0000

Cell3 R\_a 0 = 6

Cell3 R\_a 1 = 7

Cell3 R\_a 2 = 11

Cell3 R\_a 3 = 10

Cell3 R\_a 4 = 9

Cell3 R\_a 5 = 7

Cell3 R\_a 6 = 9

Cell3 R\_a 7 = 8

Cell3 R\_a 8 = 8

Cell3 R\_a 9 = 7

Cell3 R\_a 10 = 6

Cell3 R\_a 11 = 6

Cell3 R\_a 12 = 9

Cell3 R\_a 13 = 40

Cell3 R\_a 14 = 116

[R\_a0x(Ra Table)]

xCell0 R\_a flag = 0000

xCell0 R\_a 0 = 6

xCell0 R\_a 1 = 7

xCell0 R\_a 2 = 11

xCell0 R\_a 3 = 10

xCell0 R\_a 4 = 9

xCell0 R\_a 5 = 7

xCell0 R\_a 6 = 9

xCell0 R\_a 7 = 8

xCell0 R\_a 8 = 8

xCell0 R\_a 9 = 7

xCell0 R\_a 10 = 6

xCell0 R\_a 11 = 6

xCell0 R\_a 12 = 9

xCell0 R\_a 13 = 40

xCell0 R\_a 14 = 116

[R\_a1x(Ra Table)]

xCell1 R\_a flag = 0055

xCell1 R\_a 0 = 6

xCell1 R\_a 1 = 7

xCell1 R\_a 2 = 11

xCell1 R\_a 3 = 10

xCell1 R\_a 4 = 9

xCell1 R\_a 5 = 7

xCell1 R\_a 6 = 9

xCell1 R\_a 7 = 8

xCell1 R\_a 8 = 8

xCell1 R\_a 9 = 7

xCell1 R\_a 10 = 6

xCell1 R\_a 11 = 6

xCell1 R\_a 12 = 9

xCell1 R\_a 13 = 40

xCell1 R\_a 14 = 116

[R\_a2x(Ra Table)]

xCell2 R\_a flag = 0000

xCell2 R\_a 0 = 6

xCell2 R\_a 1 = 7

xCell2 R\_a 2 = 11

xCell2 R\_a 3 = 10

xCell2 R\_a 4 = 9

xCell2 R\_a 5 = 7

xCell2 R\_a 6 = 9

xCell2 R\_a 7 = 8

xCell2 R\_a 8 = 8

xCell2 R\_a 9 = 7

xCell2 R\_a 10 = 6

xCell2 R\_a 11 = 6

xCell2 R\_a 12 = 9

xCell2 R\_a 13 = 40

xCell2 R\_a 14 = 116

[R\_a3x(Ra Table)]

xCell3 R\_a flag = 0055

xCell3 R\_a 0 = 6

xCell3 R\_a 1 = 7

xCell3 R\_a 2 = 11

xCell3 R\_a 3 = 10

xCell3 R\_a 4 = 9

xCell3 R\_a 5 = 7

xCell3 R\_a 6 = 9

xCell3 R\_a 7 = 8

xCell3 R\_a 8 = 8

xCell3 R\_a 9 = 7

xCell3 R\_a 10 = 6

xCell3 R\_a 11 = 6

xCell3 R\_a 12 = 9

xCell3 R\_a 13 = 40

xCell3 R\_a 14 = 116

[Device Status Data(PF Status)]

Saved PF Flags 1 = 0000

Saved PF Flags 2 = 0000

Fuse Flag = 00

PF Voltage = 0

PF C4 Voltage = 0

PF C3 Voltage = 0

PF C2 Voltage = 0

PF C1 Voltage = 0

PF Current = 0

PF Temperature = 0.0

PF Batt Stat = 00

PF RC-mAh = 0

PF RC-10mWh = 0

PF Chg Status = 0000

PF Safety Status 1 = 0000

PF Safety Status2 = 0000

Saved 1st PF Flags 1 = 0000

Saved 1st PF Flags 2 = 0000

[AFE Regs(PF Status)]

AFE Status = 00

AFE Output = 00

AFE State = 00

AFE Function = 00

AFE Cell Select = 00

AFE OLV = 00

AFE OLT = 00

AFE SCC = 00

AFE SCD = 00

[Data(Calibration)]

CC Gain = 0.998

CC Delta = 0.998

Ref Voltage = 1225.55

AFE Pack Gain = 713.78

CC Offset = -0.278

Board Offset = -104.8

Int Temp Offset = 9.9

Ext1 Temp Offset = 0.0

Ext2 Temp Offset = 0.0

[Config(Calibration)]

CC Current = 3000

Voltage Signal = 16800

Temp Signal = 298.0

CC Offset Time = 250

ADC Offset Time = 32

CC Gain Time = 250

Voltage Time = 1984

Temperature Time = 32

Cal Mode Timeout = 300

[Temp Model(Calibration)]

Ext Coef 1 = -28285

Ext Coef 2 = 20848

Ext Coef 3 = -7537

Ext Coef 4 = 401.2

Ext Min AD = 0

Ext Max Temp = 401.2

Int Coef 1 = 0

Int Coef 2 = 0

Int Coef 3 = -11136

Int Coef 4 = 575.4

Int Min AD = 0

Int Max Temp = 575.4

[Current(Calibration)]

Filter = 239

Deadband = 75

CC Deadband = 55.0