Netvox LoRaWAN Application Command V1.8.6 For Public

VersionHistory

Date	Version	Description	Note
2017-05-03	0.1	InitVersion	
2017-05-09		Add ConfigureCmd,PQOSCmd	
2017-06-07	0.2	Add R311A、RB11E、R311G Cmd	
2017-06-12	0.3	Add RA07 cmd	
2017-07-05	0.4	Add ADR Config cmd，LowBatteryIndicator	
2017-07-06	0.5	Add IRDectionTimeSupport	
2017-08-02	0.6	Add RA07 Reportcmd	
2017-08-16	0.7	Add R311W Reportcmd	
2017-08-17	0.8	Add ChangeActiveModeAndInfoCmd	
2017-08-29	0.9	Add RB11E,R801A Support	
2017-09-08	1.0	Add RA07 temp/humid/ WindSpeed/WindDirection /Atomsphere reportcmd	
2017-09-14	1.1	Add CayenneTxPeriodCmdSupport	
2017-09-19	1.2	Add resumenetworkinfocmd	
2017-10-30	1.3	Add R726 RA02A Devicetype Support	
2017-11-01	1.4	Add R718A Devicetype Support	
2017-11-29	1.5	Add 5TE Electrical Conductivity Suport in Reporttype=0x0A Add RA07W Devicetype Support	
2017-12-28	1.5.1	Add ReadLoRaWANStack Version Support Add R727 DevicetypeSupport	
2018-01-13	1.5.2	Add R809A DevicetypeSupport	
2018-01-24	1.5.3	Add RB02I RA02C DevicetypeSupport	
2018-02-02	1.6	Add R718W DevicetypeSupport	
2018-03-08	1.7	Add R718X MultiDevice Support	
2018-04-12	1.7.1	Add R718MA Cmd definition Add RA07A/R726A/R727A DeviceType Support	
		Add R718MBB/R728MBC DeviceType Support	
2018-05-03	1.8	Add R718 MultiChannel DeviceType Support,such as R718B2/R718B4 etc	
2018-05-15	1.8.1	Add R311B/R311C/R312A/R311D/R311FA/R311FB/R311FC Device Support	
2018-05-28		Add RA07A/R726A/R727A Devicetype	
2018-06-08		Modify R312->R312A,Add new R312 Devicetype	
2018-06-19	1.8.2	Modify R311C->R311CA,Add new R311CB devicetype	
		Add SoilVWC CalibrateCmd	
2018-08-09	1.8.3	Add CN470 modify channel	

2018-08-20		Add R718G settingcmd	
2018-08-22		Add R718PA/R718PB Series DeviceSupport Add R719 DeviceSupport	
2018-08-28		Add R718H CmdSupport	
2018-09-05		Add R718H2 CmdSupport Add Passthrough CmdDefine	
2018-09-27		Add GlobalCalibrateCmd	
2018-10-12		Add R311WA Device Support	
2018-10-16		Extend R718N1/N3 Payload to support report when current larger than 65A	
2018-10-23		Add VOCs ReportType Support	
2018-11-09	1.8.4	Modify R718C to R712C2, R718C device type will be added in future	
		Add R718Q CmdSupport Add R718IJK CmdSupport	
2018-11-19		Add R718R/U/S CmdSupport	
2018-11-26		Add PQOS Cmd to Support SetAU915/US915 Bands and Set AS923/KR920/IN868 New default channels	
2018-11-27	1.8.5	Add R718E CmdSupport	
2018-11-29		Add R602A Cmd Support	
2018-11-30		Add RA0716A DeviceSupport	
2018-12-04		Add PQOS cmd to support modify OTA>=<ABP Add PQOS cmd to support R606A	
2018-12-11		Modify docerror according M47 Customer's Check	
2018-12-12		Modify R718E datatype from int16 to float16 type	
2018-12-18		Add R718WBA CmdSupport	
2018-12-26		Add R311CC CmdSupport	
2019-01-28	1.8.6	Add R306 Devicetype Support	
2019-02-25		Modify R718E Cmd	
2019-03-12		Add R718PC/R720A/R720B/R720C/RA10 Devicetype Support Add AS923 dwelltimeonoffsetCmdSupport Add lastmessageresenddurationSet in ContactSwtichtype Modify R718G LightLevelRangesetting Add R602A MuteWaringModeCmd Support Add R718PC changebaudrateCmdSupport	
2019-03-27		Add R816 DeviceType	

1、 ReportDataCmd(UpDirection)

FPort：0x06

Bytes	1	1	1	Var(Fix=8 Bytes)
	Version	DeviceType	ReportType	NetvoxPayLoadData

Version– 1 bytes –0x01——the Version of NetvoxLoRaWAN Application Command Version

DeviceType– 1 byte – Device Type of Device

0x01——R711
0x02——R311A
0x03——RB11E
0x04——R311G
0x05——RA07 Series
0x06——R311W
0x07——RB11E1
0x08——R801A
0x09——R726 Series
0x0A——RA02A
0x0B——R718A
0x0C——RA07W
0x0D——R727 Series
0x0E——R809A
0x0F——R211
0x10——RB02I
0x11——RA02C
0x12——R718WB
0x13——R718AB
0x14——R718B2
0x15——R718CJ2 0x16——R718CK2 0x17——R718CT2 0x18——R718CR2
0x19——R718CE2
0x1A——R718DA 0x1B——R718DB
0x1C——R718E
0x1D——R718F
0x1E——R718G
0x1F——R718H
0x20——R718IA
0x21——R718J
0x22——R718KA 0x23——R718KB
0x24——R718LA 0x25——R718LB
0x26——R718MA 0x27——R718MBA 0x28——R718MC
0x29——R718N
0x2A——R718IB
0x2B——R718MBB
0x2C——R718MBC
0x2D——R7185N
0x2E——R718B4
0x2F——R718DA2

0x30——R718S
0x31——R718T
0x32——R718WA
0x33——R718WD
0x34——R718X
0x35——RA0716
0x36——R72616
0x37——R72716
0x38——R718CJ4 0x39——R718CK4 0x3A——R718CT4 0x3B——R718CR4
0x3C——R718CE4
0x3D——R718DB2 0x3E——R718F2
0x3F——R718H2 0x40——R718H4
0x41——R718IA2 0x42——R718IB2
0x43——R718J2
0x44——R718KA2
0x45——R718LB2
0x46——R718WA2 0x47——R718WB2 0x48——R718T2
0x49——R718N1 0x4A——R718N3
0x4B——R311B 0x4C——R311CA 0x4D——R312A 0x4E——R311D
0x4F——R311FA 0x50——R311FB 0x51——R311FC
0x52——RA07ASeries 0x53——R726ASeries 0x54——R727ASeries
0x55——R312 0x56——R311CB
0x57——R718PA Series 0x58——R718PB Series
0x59——R719
0x5A——R311WA
0x5B——R718Q
0x5C——R718IJK
0x5D——R718SA 0x5E——R728SA 0x5F——R729SA
0x60——R718R Series 0x61——R718U Series 0x62——R718S Series
0x63——R728R Series 0x64——R728U Series 0x65——R728S Series
0x66——R729R Series 0x67——R729U Series 0x68——R729S Series
0x69——R602A 0x6A——RA0716A 0x6B——R718WBA
0x6C——R311CC
0x6D——R306
0x6E——R720A 0x6F——R720B 0x70——R720C 0x71——RA10
0x72——R718PC 0x73——R816

0xFF——ALL Device
Other ——Reserved

ReportType – 1 byte –the Presention of the NetvoxPayLoadData，according the devicetype

NetvoxPayLoadData– Fixed bytes (Fixed =8bytes)–

Device	Device Type	ReportType	NetvoxPayLoadData				
ALL	ALL(according device type not FF)	0x00	SoftwareVersion(1Byte) Eg.0x0A—V1.0	HardwareVersion(1Byte)	DateCode(4Bytes,eg 0x20170503)	Reserved(2Bytes,fixed 0x00)	
R711/R718A/R718AB/R720A	0x01/0x0B/0x13/0x6E	0x01	Battery(1Byte, unit:0.1V)	Temperature(Signed2Bytes,unit:0.01°C)	Humidity(2Bytes,unit:0.01%)	Reserved(3Bytes,fixed 0x00)	
R720B	0x6F	0x01	Battery(1Byte, unit:0.1V)	Temperature(Signed2Bytes,unit:0.01°C)	Humidity(2Bytes,unit:0.01%)	Alarm (1Byte 0:off 1:on)	Reserved(2Bytes,fixed 0x00)
R718WBA	0x6B	0x01	Battery(1Byte, unit:0.1V)	Temperature(Signed2Bytes,unit:0.01°C)	Humidity(2Bytes,unit:0.01%)	Status (1Byte 0:off 1:on)	Reserved(2Bytes,fixed 0x00)
R718CJ2/CK2/CT2/CE2/CR2	0x15/16/17/18/19	0x01	Battery(1Byte, unit:0.1V)	Temperature1(Signed2Bytes,unit:0.1°C)	Temperature2(Signed2Bytes,unit:0.1°C)	Reserved(3Bytes,fixed 0x00)	
R7	0x38/	0x01	Battery(1By	Temperature1(Sign	Temperature2	Reserved(3Bytes,fixed	

18CJ4/CK4/CR4/CE4	0x39/0x3A/0x3B/0x3C		te, unit:0.1V)	ed2Bytes,unit:0.1°C)	(Signed2Bytes,unit:0.1°C)	0x00)
		0x02	Battery(1Byte, unit:0.1V)	Temperature3(Signed2Bytes,unit:0.1°C)	Temperature4(Signed2Bytes,unit:0.1°C)	Reserved(3Bytes,fixed 0x00)
R718B2	0x14	0x01	Battery(1Byte, unit:0.1V)	Temperature1(Signed2Bytes,unit:0.1°C)	Temperature2(Signed2Bytes,unit:0.1°C)	Reserved(3Bytes,fixed 0x00)
R718B4	0x2E	0x01	Battery(1Byte, unit:0.1V)	Temperature1(Signed2Bytes,unit:0.1°C)	Temperature2(Signed2Bytes,unit:0.1°C)	Reserved(3Bytes,fixed 0x00)
		0x02	Battery(1Byte, unit:0.1V)	Temperature3(Signed2Bytes,unit:0.1°C)	Temperature4(Signed2Bytes,unit:0.1°C)	
R7 19	0x59	0x01	Battery(1Byte, unit:0.1V)	CarOnOff(1Byte 0:off 1:on)	IRAbnormal(1Byte 0:Normal 1:Abnormal)	Reserved(5Bytes,fixed 0x00)
R718DA/R718DB/R718JB/R718LB/R718MBA/R311FA/R718	0x1A/0x1B/0x21/0x25/0x27/0x4F/0x5B	0x01	Battery(1Byte, unit:0.1V)	Status(1Byte 0:off 1:on)	Reserved(6Bytes,fixed 0x00)	

Q							
R718DA2/R718DB2/R718F2/R718J2/R718L2/R311CA/R311CB	0x2F/0x3D/0x3E/0x43/0x45/0x4C/0x56/0x6C	0x01	Battery(1Byte, unit:0.1V)	Status1(1Byte 0:off 1:on)	Status2(1Byte 0:off 1:on)	Reserved(5Bytes,fixed 0x00)	
R311A/R718F/R311CC	0x02/0x1D	0x01	Battery(1Byte, unit:0.1V)	ContactSwitchOnOff(1Byte 0:off 1:on)	Reserved(6Bytes,fixed 0x00)		
R718G	0x1E	0x01	Battery(1Byte, unit:0.1V)	illuminance (4Bytes,unit:1Lux)	Reserved(3Bytes,fixed 0x00)		
R718E	0x1C	0x01	Battery(1Byte, unit:0.1V)	AccelerationX(Float16_2Bytes, m/s2)	AccelerationY(Float16_2Bytes, m/s2)	AccelerationZ(Float16_2Bytes, m/s2)	Reserved(1Bytes,fixed 0x00)

		0x02	VelocityX(Float16_2Bytes, mm/s)	VelocityY(Float16_2Bytes, mm/s)	VelocityZ(Float16_2Bytes, mm/s)	Temperature(Signed2Bytes,unit:0.1° C)
R718IA/R718IB	0x20/0x2A	0x01	Battery(1Byte, unit:0.1V)	ADCRawValue(2Bytes,unit:1mv)	Reserved(5Bytes,fixed 0x00)	
R718IA2/R718IB2	0x41/0x42	0x01	Battery(1Byte, unit:0.1V)	ADCRawValue1(2Bytes,unit:1mv)	ADCRawValue2(2Bytes,unit:1mv)	Reserved(3Bytes,fixed 0x00)
R718IJK	0x5C	0x01	Battery(1Byte, unit:0.1V)	Status1(1Byte 0:off 1:on)	Current(1Bytes,unit:1mA)	ADCRawValue2(2Bytes,unit:1mv)	Reserved(3Bytes,fixed 0x00)
R718KA	0x22	0x01	Battery(1Byte, unit:0.1V)	Current(1Bytes,unit:1mA)	Reserved(6Bytes,fixed 0x00)	
R718KA2	0x44	0x01	Battery(1Byte, unit:0.1V)	Current1(1Bytes,unit:1mA)	Current2(1Bytes,unit:1mA)	Reserved(5Bytes,fixed 0x00)
R718KB	0x23	0x01	Battery(1Byte, unit:0.1V)	Resistive(4Bytes,unit:1Ohms)	Reserved(3Bytes,fixed 0x00)	
R718H	0x1F	0x01	Battery(1Byte, unit:0.1V)	PulseCount(2byte)	Reserved(5Bytes,fixed 0x00)	
R718H2	0x3F	0x01	Battery(1Byte, unit:0.1V)	Pulse1Count(2byte)	Pulse2Count(2byte)	Reserved(3Bytes,fixed 0x00)
RB11E/RB11E1	0x03/0x07	0x01	Battery(1Byte, unit:0.1V)	Temperature(Signed 2Bytes,unit:0.01° C)	illuminance (2Bytes,unit:1Lux)	Occupy(1Byte 0:UnOccupy 1:Occupy)	Reserved(2Bytes,fixed 0x00)
R311G/	0x04/0x4B	0x01	Battery(1Byte, unit:0.1V)	illuminance (2Bytes,unit:1Lux)	Reserved(5Bytes,fixed 0x00)	

R311B							
RA07/R726/R727/RA07A/R726A/R727A/R718PA/R718PB/R718RSeries/R718USeries/R718SSeries/	0x05/0x09/0x0D/0x52/0x53/x054/0x57/0x58/0x60/0x61/0x62/0x63/0x64/0x65/0x66/0x67/0x68	0x01	Battery(1Byte, unit:0.1V)	PM1.0(2Byte ,CF=1 ,1ug/m3)	PM2.5(2Byte CF=1,ug/m3)	PM10(2Byte CF=1,ug/m3)	Reserved(1Bytes,fixed 0x00)
		0x02	Battery(1Byte, unit:0.1V)	PM1.0(2Byte 1ug/m3)	PM2.5(2Byte 1ug/m3)	PM10(2Byte 1ug/m3)	Reserved(1Bytes,fixed 0x00)
		0x03	Battery(1Byte, unit:0.1V)	0.3um PM(2Byte ,1pcs)	0.5um PM(2Byte ,1pcs)	1.0um PM(2Byte ,1pcs)	Reserved(1Bytes,fixed 0x00)
		0x04	Battery(1Byte, unit:0.1V)	2.5um PM(2Byte ,1pcs)	5.0um PM(2Byte ,1pcs)	10um PM(2Byte ,1pcs)	Reserved(1Bytes,fixed 0x00)
		0x05	Battery(1Byte, unit:0.1V)	O3(2Byte ,0.1ppm)	CO(2Byte ,0.1ppm)	NO(2Byte ,0.1ppm)	Reserved(1Bytes,fixed 0x00)
		0x06	Battery(1Byte, unit:0.1V)	NO2(2Byte ,0.1ppm)	SO2(2Byte ,0.1ppm)	H2S(2Byte ,0.1ppm)	Reserved(1Bytes,fixed 0x00)
		0x07	Battery(1Byte, unit:0.1V)	CO2(2Byte ,0.1ppm)	NH3(2Byte ,0.1ppm)	Noise(2Byte ,0.1db)	Reserved(1Bytes,fixed 0x00)
		0x08	Battery(1Byte, unit:0.1V)	PH(2Byte ,0.01pH)	TemperaturewithPH(Signed 2Bytes,unit:0.01°C)	ORP(Signed 2Byte ,1mv)	Reserved(1Bytes,fixed 0x00)
		0x09	Battery(1Byte, unit:0.1V)	NTU(2Byte ,0.1ntu)	TemperaturewithNTU(Signed 2Bytes,unit:0.01°C)	EC5SoildHumidtiy(2Bytes,unit:0.01%)	Reserved(1Bytes,fixed 0x00)
		0x0A	Battery(1Byte, unit:0.1V)	5TESoildHumidtiy(2Bytes,unit:0.01%)	5TESoildTemp(Signed 2Bytes,unit:0.01°C)	WaterLevel(2Bytes,unit:1cm)	5TEEC(1Bytes, unit:0.1db/m)
		0x0B	Battery(1By	TemperaturewithL	LDO'DO	LDO'Sat	Reserve

R728 RS eries/ R728 U Series / R728 SS eries/ R729 RS eries/ R729 U Series / R729 SS eries/			te, unit:0.1V)	DO(Signed 2Bytes,unit:0.01° C)	Value(2Bytes,unit:0.01ppm)	Value(2Bytes,unit:0.1%)	d(1Bytes,fixed 0x00)
		0x0C	Battery(1Byte, unit:0.1V)	Temperature(Signed2Bytes,unit:0.01° C)	Humidity(2Bytes, unit:0.01%)	WindSpeed(2Bytes,unit:0.01m/s)	Reserved(1Bytes,fixed 0x00)
		0x0D	Battery(1Byte, unit:0.1V)	WindDirection(2Bytes)	Atomsphere(4Bytes,unit:0.01mbar)		Reserved(1Bytes,fixed 0x00)
		0x0E	Battery(1Byte, unit:0.1V)	VOC(2Bytes,Unit:0.1ppm)	Reserved(5Bytes,fixed 0x00)		
R311W	0x06	0x01	Battery(1Byte, unit:0.1V)	Water1Leak(1Byte 0:noleak 1:leak)	Water2Leak(1Byte 0:noleak 1:leak)	Reserved(5Bytes,fixed 0x00)	
R311WA	0x5A	0x01	Battery(1Byte, unit:0.1V)	Status1(1Byte 0:off 1:on)	Status2(1Byte 0:off 1:on)	Reserved(5Bytes,fixed 0x00)	
R801A	0x08	0x01	Battery(1Byte, unit:0.1V)	Temperature1(Signed2Bytes,unit:0.01° C)	Temperature2(Signed2Bytes,unit:0.01° C)	Reserved(3Bytes,fixed 0x00)	
RA02	0x0A	0x01	Battery(1Byte,	FireAlarm(1Byte 0:noalarm 1:alarm)	HighTempAlarm(1Byte	Reserved(5Bytes,fixed 0x00)	

A			unit:0.1V)		0:noalarm 1:alarm)	
RA07W	0x0C	0x01	Battery(1Byte, unit:0.1V)	WaterLeakLocation (2Bytes ,10cm)(Normal_0000,SenorNotConnected_FFFF,OtherValue_LeakLocation)	Reserved(5Bytes,fixed 0x00)	
R809A/R816	0x0E/0x73	0x01	OnOff(1Byte, OFF_0x00, ON_0x01)	Energy(4Byte, unit:1wh)	OverCurrentAlarm(1Byte 0:noalarm 1:alarm)	DashCurrentAlarm(1Byte 0:noalarm 1:alarm) / Reserved(1Bytes,fixed 0x00)
		0x02	Vol(2Bytes, Unit:1V)	Current(2Bytes,Unit:1ma)	Power(2Bytes,Unit:1W)	Reserved(2Bytes,fixed 0x00)
RB02I/R718T/R312A/R312	0x10/0x31/0x4D/0x55	0x01	Battery(1Byte, unit:0.1V)	Alarm(1Byte 0:noalarm 1:alarm)/Doorbell(1Byte 0:nodoorbell 1:doorbell)	Reserved(6Bytes,fixed 0x00)	
R718T2	0x48	0x01	Battery(1Byte, unit:0.1V)	Alarm1(1Byte 0:noalarm 1:alarm)	Alarm2(1Byte 0:noalarm 1:alarm)	Reserved(5Bytes,fixed 0x00)
RA02C	0x11	0x01	Battery(1Byte, unit:0.1V)	COAlarm(1Byte 0:noalarm 1:alarm)	HighTempAlarm(1Byte 0:noalarm 1:alarm)	Reserved(5Bytes,fixed 0x00)
R718WB/R718WA	0x12/0x32	0x01	Battery(1Byte, unit:0.1V)	WaterLeak (1Byte 0:noLeak1:Leak)	Reserved(6Bytes,fixed 0x00)	
R718	0x46/0x47	0x01	Battery(1Byte,	WaterLeak 1(1Byte 0:noLeak1:Leak)	WaterLeak 2(1Byte 0:noLeak1:Leak)	Reserved(5Bytes,fixed 0x00)

WA2/R718WB2			unit:0.1V)				
R718WD	0x33	0x01	Battery(1Byte, unit:0.1V)	TankRawData(2Bytes ,Unit： 1mv)	TankLevl(1Byte,Unit:1%)	Reserved(4Bytes,fixed 0x00)	
R718MA/R311D	0x26/0x4E	0x01	Battery(1Byte, unit:0.1V)	RSSI(2Bytes,Signed Vaule,Unit:1dbm)	SNR(1Byte,Signed Value)	HeartInterval(2Bytes,Unit:1s)	Reserved(2Bytes,fixed 0x00)
RA0716/R7261 6/R72716/R718SA/R728SA/R729SA/RA0716A	0x35/0x36/x037/0x5D/0x5E/0x05F/0x6A	0x01	Battery(1Byte, unit:0.1V)	Temperature(Signed2Bytes,unit:0.01°C)	Humidity(2Bytes,unit:0.01%)	PM2.5(2Byte 1ug/m3)	Reserved(1Bytes,fixed 0x00)

R718MBB/R311FB	0x2B/0x50	0x01	Battery(1Byte, unit:0.1V)	WorkCount(4Bytes)		Reserved(3Bytes,fixed 0x00)
R718MBC/R311FC	0x2C/0x51	0x01	Battery(1Byte, unit:0.1V)	Workdurationtime(4Bytes,unit:1s)		Reserved(3Bytes,fixed 0x00)
R718N1	0x49	0x01	Battery(1Byte, unit:0.1V)	Current(2Bytes, Unit:1ma)	Mulitplier(1Byte),the real current should convert with Current* Mulitplier	Reserved(4Bytes,fixed 0x00)
R718N3	0x4A	0x01	Battery(1Byte, unit:0.1V)	Current1(2Bytes,Unit:1ma)	Current2(2Bytes,Unit:1ma)	Current3(2Bytes,Unit:1ma) Mulitplier(1Byte),the real current should convert with Current* Mulitplier
R602A	0x69	0x01	Hearbeattime(2Bytes, Unit:1s)	Reserved(6Bytes,fixed 0x00)		
R720C	0x70	0x01	Battery(1Byte, unit:0.1V)	AirPressure (4Bytes,unit:0.01hPa)	Temperature(Signed2Bytes,unit:0.01°C)	Reserved(1Bytes,fixed 0x00)
RA10	0x71	0x01	OnOff(1Byte, OFF_0x00, ON_0x01)	Reserved(7Bytes,fixed 0x00)		

Battery(1Byte, unit:0.1V):Bit7 represent lowbattery Bit6-0 represent batteryvoltage
When Battery is 0x00,it represet is powered by DC/AC powersource
For RA07/R726/R727/R718PA/R718PB Series, when report data is all FF，it represent the sensor is disconnected

PayLoadDecodeExample:

010B012409EA1A90000000

01—protocalversion

0B—devicetype,represent R718A

01---reporttype

24------battery,represent 3.6v

09EA---temperature,represent 25.38℃

1A90---humidity,represent 68.00%

000000---reserveddata

010B0124FC181A90000000

01—protocalversion

0B—devicetype,represent R718A

01---reporttype

24------battery,represent 3.6v

FC18---temperature,represent -10.00 ℃ (must decode with **signed** type vaule,such int16,you also can decode by 0x1000-0x FC18=0x3E8=1000/100=-10.00 ℃)

1A90---humidity,represent 68.00%

000000---reserveddata

2、 ConfigureCmd(Bi-Direction)

FPort：0x07

Bytes	1	1	Var(Fix =9 Bytes)
	CmdID	DeviceType	NetvoxPayLoadData

CmdID– 1 bytes –

DeviceType– 1 byte – Device Type of Device

0x01——R711
0x02——R311A
0x03——RB11E
0x04——R311G
0x05——RA07 Series
0x06——RA311W
0x07——RB11E1
0x08——R801A
0x09——R726 Series
0x0A——RA02A
0x0B——R718A
0x0C——RA07W
0x0D——R727 Series
0x0E——R809A
0x0F——R211
0x10——RB02I

0x11——RA02C
0x12——R718WB
0x13——R718AB
0x14——R718B2
0x15——R718CJ2 0x16——R718CK2 0x17——R718CT2 0x18——R718CR2
0x19——R718CE2
0x1A——R718DA 0x1B——R718DB
0x1C——R718E
0x1D——R718F
0x1E——R718G
0x1F——R718H
0x20——R718IA
0x21——R718J
0x22——R718KA 0x23——R718KB
0x24——R718LA 0x25——R718LB
0x26——R718MA 0x27——R718MBA 0x28——R718MC
0x29——R718N
0x2A——R718IB
0x2B——R718MBB
0x2C——R718MBC
0x2D——R7185N
0x2E——R718B4
0x2F——R718DA2
0x30——R718S
0x31——R718T
0x32——R718WA
0x33——R718WD
0x34——R718X
0x35——RA0716
0x36——R72616
0x37——R72716
0x38——R718CJ4 0x39——R718CK4 0x3A——R718CT4 0x3B——R718CR4
0x3C——R718CE4
0x3D——R718DB2 0x3E——R718F2
0x3F——R718H2 0x40——R718H4
0x41——R718IA2 0x42——R718IB2
0x43——R718J2
0x44——R718KA2
0x45——R718LB2
0x46——R718WA2 0x47——R718WB2 0x48——R718T2
0x49——R718N1 0x4A——R718N3
0x4B——R311B 0x4C——R311CA 0x4D——R312A 0x4E——R311D
0x4F——R311FA 0x50——R311FB 0x51——R311FC
0x52——RA07ASeries 0x53——R726ASeries 0x54——R727ASeries

0x55——R312　　0x56——R311CB
0x57——R718PA Series　0x58——R718PB Series
0x59——R719
0x5A——R311WA
0x5B——R718Q
0x5C——R718IJK
0x5D——R718SA　0x5E——R728SA　0x5F——R729SA
0x60——R718R Series　0x61——R718U Series　0x62——R718S　Series
0x63——R728R Series　0x64——R728U Series　0x65——R728S　Series
0x66——R729R Series　0x67——R729U Series　0x68——R729S　Series
0x69——R602A　0x6A——RA0716A　0x6B——R718WBA
0x6C——R718CC
0x6E——R720A　0x6F——R720B　0x70——R720C　0x71——RA10
0x72——R718PC　0x73——R816

0xFF——ALL Device
Other ——Reserved

NetvoxPayLoadData– var bytes (Max=9bytes)–

Description	Device	CmdID	DeviceType	NetvoxPayLoadData				
Off	R809A/R816	0x90	0x0E/0x73	Reserved (9Bytes,Fixed 0x00)				
On		0x91		Reserved (9Bytes,Fixed 0x00)				
Toggle		0x92		Reserved (9Bytes,Fixed 0x00)				
ClearEnergy		0x93		Reserved (9Bytes,Fixed 0x00)				
ConfigReportReq		0x01		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	CurrentChange(2byte Unit:1mA)	PowerChange（2byte Unit:1W）	Reserved (1Byte,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	CurrentChange(2byte Unit:1mA)	PowerChange（2byte Unit:1W）	Reserved (1Byte,Fixed 0x00)
StartWaring	R602A	0x90	0x69	WaringMode(1byte, 0x00_FireMode, 0x01_Emerg	StrobeMode(1byte, 0x00_NoLed Indication, 0x01_LedBli	WaringDurition(2bytes, Unit:1s)	Reserved (5Bytes,Fixed 0x00)	

				encyMode, 0x02_Burglar, 0x03_Doorbell, 0x04_Mute Mode Other vaule is Reserved)	nkMode1 in Parrel to Waring, 0x02_ LedBlinkMode2 in Parrel to Waring)		
ConfigReportReq		0x01		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
Off	RA10	0x90	0x71	Reserved (9Bytes,Fixed 0x00)			
On		0x91		Reserved (9Bytes,Fixed 0x00)			
Toggle		0x92		Reserved (9Bytes,Fixed 0x00)			
ConfigReportReq		0x01		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
ConfigReportReq	R718N1/R718N3	0x01	0x49/0x4A	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	CurrentChange(2byte Unit:1mA)	Reserved (3Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	CurrentChange(2byte Unit:1mA)	Reserved (3Bytes,Fixed 0x00)

ConfigReportReq	R711/R718A/R718AB/R718WBA/R720A/R720B	0x01	0x01/0x0B/0x13/0x6B/0x6E/0x6F	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Temperature Change(2byte Unit:0.01℃)	HumidityChange（2byte Unit:0.01%）
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.01℃)	HumidityChange（2byte Unit:0.01%）
ConfigReportReq	R720C	0x01	0x70	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.01℃)	AirPressChange（2byte Unit:0.1hPa）
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.01℃)	AirPressChange（2byte Unit:0.1hPa）
ConfigReportReq	R718CJ2/CK2/CT2/CR2/CE2/R718CJ4/CK4/CT4/CR4/CE4	0x01	0x15/16/17/18/19/0x38/0x39/3x3A/0x3B/0x3C	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.1℃)	Reserved (2Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.1℃)	Reserved (2Bytes,Fixed 0x00)
SetThermocoupleTypeReq		0x03	0x15 or 0x16 or 0x17 or 0x18 Or	ThermocoupleType(1Byte,0x00_Jtype 0x01_Ktype,0x02_Ttyep,0x03_Rtype, 0x04_Etype)			Reserved (8Bytes,Fixed 0x00)	
SetThermocoupleTypeRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetThermo		0x04		Reserved (9Bytes,Fixed 0x00)				

coupleType Req			0x19 Or 0x38/ 0x39/ 3x3A /0x3 B/0x 3C					
GetThermo coupleType Rsp		0x84		ThermocoupleType(1Byte,0x00_Jtype 0x01_Ktype,0x02_Ttyep,0x03_Rtype, 0x04_Etype)	Reserved (8Bytes,Fixed 0x00)			
SetR718MB TypeReq	R718 MBA /R71 8MB B/R7 18M BC	0x03	0x27/ 0x2B /0x2 C	R718MBType(1Bytes,0x01_R718MBA,0 x02_R718MBB,0x03_R718MBC)	Reserved (8Bytes,Fixed 0x00)			
SetR718MB TypeRsp		0x83		Status(0 x00_suc cess)	Reserved (8Bytes,Fixed 0x00)			
GetR718MB TypeReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetR718MB TypeRsp		0x84		R718MBType(1Bytes,0x01_R718MBA,0 x02_R718MBB,0x03_R718MBC)	Reserved (8Bytes,Fixed 0x00)			
SetActiveTh resholdReq		0x05		Threshold(2Bytes)	Deactivetime(1Byte,Unit:1s)	Reserved (6Bytes,Fixed 0x00)		
SetActiveTh resholdRsp		0x85		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetActiveT hresholdReq		0x06		Reserved (9Bytes,Fixed 0x00)				
GetActiveT hresholdRsp		0x86		Threshold(2Bytes)	Deactivetime(1Byte,Unit:1s)	Reserved (6Bytes,Fixed 0x00)		
ConfigRepo rtReq	R718 E	0x01	0x1C	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Acceleration Change(2byte Unit:m/s2)	Reserved (2Bytes,Fixed 0x00)
ConfigRepo rtRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfig ReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Acceleration Change(2byte Unit:m/s2)	Reserved (2Bytes,Fixed 0x00)
SetActiveTh resholdReq		0x03		ActiveThreshold(2Bytes)	InActiveThreshold(2Bytes)	Reserved (5Bytes,Fixed 0x00)		
SetActiveTh		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			

resholdRsp								
GetActiveThresholdReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetActiveThresholdRsp		0x84		Threshold(2Bytes)	InActiveThreshold(2Bytes)	Reserved (5Bytes,Fixed 0x00)		
SetR311FTypeReq	R311FA/R311FB/R311FC	0x03	0x4F 0x50/0x51	R311FType(1Bytes,0x01_R311FA,0x02_R311FB,0x03_R311FC)	Reserved (8Bytes,Fixed 0x00)			
SetR311FTypeRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetR311FTypeReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetR311FTypeRsp		0x84		R311FType(1Bytes,0x01_R311FA,0x02_R311FB,0x03_R311FC)	Reserved (8Bytes,Fixed 0x00)			
SetActiveThresholdReq		0x05		Threshold(2Bytes)	Deactivetime(1Byte,Unit:1s)	Reserved (6Bytes,Fixed 0x00)		
SetActiveThresholdRsp		0x85		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetActiveThresholdReq		0x06		Reserved (9Bytes,Fixed 0x00)				
GetActiveThresholdRsp		0x86		Threshold(2Bytes)	Deactivetime(1Byte,Unit:1s)	Reserved (6Bytes,Fixed 0x00)		
ConfigReportReq	R718B2/R718B4	0x01	0x14/0x2E	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.1℃)	Reserved (2Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.1℃)	Reserved (2Bytes,Fixed 0x00)
ConfigReportReq	R718KA/R718KA2	0x01	0x22/0x44	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	CurrentChange(1byte Unit:1mA)	Reserved (3Bytes,Fixed 0x00)
ConfigRepo		0x81		Status(0	Reserved (8Bytes,Fixed 0x00)			

rtRsp				x00_success)					
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)					
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	CurrentChange (1byte Unit: 1mA)	Reserved (3Bytes,Fixed 0x00)	
ConfigReportReq	R718IA/R718IB/R718IA2/R718IB2	0x01	0x20/0x2A/0x41/0x42	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	ADCRawValueChange(2byte Unit:1mV)	Reserved (2Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)				
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)					
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	ADCRawValueChange (2byte Unit: 1mV)	Reserved (2Bytes,Fixed 0x00)	
ConfigReportReq	R718IJK	0x01	0x5C	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	ADCRawValueChange(2byte Unit:1mV)	CurrentChange(1byte Unit: 1mA)	Reserved (1Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)				
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)					
ReadConfigReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	ADCRawValueChange (2byte Unit: 1mV)	CurrentChange(1byte Unit: 1mA)	Reserved (1Bytes,Fixed 0x00)
ConfigReportReq	R718WD	0x01	0x33	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TankLevelChange(1Byte,Unit:1%)	Reserved (3Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_suc	Reserved (8Bytes,Fixed 0x00)				

				cess)				
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfig ReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TankLevelChange(1Byte,Unit:1%)	Reserved (3Bytes,Fixed 0x00)
SetTankLevelRangeReq		0x03		MinSensorVoltage(1Byte, Unit:100mv)	MaxSensorVoltage (1Byte,Unit: 100mv)	Reserved (7Bytes,Fixed 0x00)		
SetTankLevelRangeRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetTankLevelRangeReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetTankLevelRangeRsp		0x84		MinSensorVoltage (1Byte,Unit: 100mv)	MaxSensorVoltage (1Byte,Unit: 100mv)	Reserved (7Bytes,Fixed 0x00)		
ConfigReportReq	R311A/ R718DA/R718DB/R718J/ R718LB/R718 MA/ /R718F /R718MBA/R718MBB/R718 MBC	0x01	0x02/ 0x1A /0x1B/0x21/0x25/0x26/0x1D/0x27/0x2B/ 0x2C /0x3D/0x3E/0x43/0x45/0x4F/0x50/0x51/0x4E/0x	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfig ReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime (2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)	

	/R718DB2/R718F2/R718J2/R718LB2/R311FA/R311FB/R311FC/R311D/R719/R718H/R718H2		59/0x1F/0x3F				
SetDetectThresholdReq	R719	0x03	0x59	DetectThreshold (2bytes)	Reserved (7Bytes,Fixed 0x00)		
SetDetectThresholdRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
GetDetectThresholdReq		0x04		Reserved (9Bytes,Fixed 0x00)			
GetDetectThresholdRsp		0x84		DetectThreshold (2bytes)	Reserved (7Bytes,Fixed 0x00)		
SetFiltertimeReq	R718H/R718H2	0x03	0x1F/0x3F	FilterTime(1byte, Unit:5ms)	Reserved (8Bytes,Fixed 0x00)		
SetFiltertimeRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
GetFiltertimeReq		0x04		Reserved (9Bytes,Fixed 0x00)			
GetFiltertimeRsp		0x84		FilterTime(1byte,	Reserved (8Bytes,Fixed 0x00)		

				Unit:5ms)			
ConfigReportReq	R311W/R311CA/R311CB/R311CC	0x01	0x06/0x4C/0x56/0x6C	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportReq	RB02I/R718T/R718T2/R312A/R312	0x01	0x10/0x31/0x48/0x4D/0x55	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportReq	R718WB/R718WA/R718WA2/R718WB2	0x01	0x12/0x32/0x46/0x47	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportReq	RA02A	0x01	0x0A	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_suc	Reserved (8Bytes,Fixed 0x00)		

				cess)			
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfig ReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportReq	RA02C	0x01	0x11	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfig ReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)
ConfigReportReq	RA07W	0x01	0x0C	MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfig ReportRsp		0x82		MinTime (2bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
SetSensorParaReq		0x03		LineLength(2Bytes,Unit:10cm)	Sensitivity (1Byte,Hihg_0x00,Mid_0x01,Low_0x02)	Reserved (6Bytes,Fixed 0x00)	
SetSensorParaRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
GetSensorParaReq		0x04		Reserved (9Bytes,Fixed 0x00)			
GetSensorParaRsp		0x84		LineLength(2Bytes,Unit:10cm)	Sensitivity (1Byte,Hihg_0x00,Mid_0x01,Lo	Reserved (6Bytes,Fixed 0x00)	

					w_0x02)			
ConfigReportReq	R311WA	0x01	0x5A	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	SensorDisableTime(2bytes Unit:s)	SensorDectionTime(2bytes Unit:s)
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadReportConfigReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadReportConfigRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	SensorDisableTime(2bytes Unit:s)	SensorDectionTime(2bytes Unit:s)
ConfigReportReq	RB11E/RB11E1	0x01	0x03/0x07	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.01℃)	illuminance（2byte Unit: 1Lux）
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	TemperatureChange(2byte Unit:0.01℃)	illuminance Change（2byte Unit: 1Lux）
SetIRDisableTImeReq		0x03		IRDisableTime(2bytes Unit:s)	IRDectionTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)		
SetIRDisableTImeRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetIRDisableTImeReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetIRDisableTImeRsp		0x84		IRDisableTime(2bytes Unit:s)	IRDectionTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)		
ConfigReportReq	R718Q	0x01	0x5B	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)	
ConfigRepo		0x81		Status(0x00	Reserved (8Bytes,Fixed 0x00)			

rtRsp				_success)				
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfig ReportRsp		0x82		MinTime(2 bytes Unit:s)	MaxTim e(2byte s Unit:s)	BatteryChan ge(1byte Unit:0.1v)	Reserved (4Bytes,Fixed 0x00)	
SetIRDisabl eTImeReq		0x03		IRDisableTi me(2bytes Unit:s)	IRDecti onTime (2bytes Unit:s)	Reserved (7Bytes,Fixed 0x00)		
SetIRDisabl eTImeRsp		0x83		Status(0x00 _success)	Reserved (8Bytes,Fixed 0x00)			
GetIRDisabl eTImeReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetIRDisabl eTImeRsp		0x84		IRDisableTi me(2bytes Unit:s)	IRDecti onTime (2bytes Unit:s)	Reserved (7Bytes,Fixed 0x00)		
ConfigRepo rtReq	R311 G	0x01	0x04	MinTime(2 bytes Unit:s)	MaxTim e(2byte s Unit:s)	BatteryChan ge(1byte Unit:0.1v)	Illuminancech ange(2bytes Unit： 1Lux)	Reserved (2Bytes,Fixed 0x00)
ConfigRepo rtRsp		0x81		Status(0x00 _success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfig ReportRsp		0x82		MinTime(2 bytes Unit:s)	MaxTim e(2byte s Unit:s)	BatteryChan ge(1byte Unit:0.1v)	Illuminancec hange(2byte s Unit：1Lux)	Reserved (2Bytes,Fixed 0x00)
ConfigRepo rtReq	R311 B	0x01	0x4B	MinTime(2 bytes Unit:s)	MaxTim e(2byte s Unit:s)	BatteryChang e(1byte Unit:0.1v)	Illuminanceth reshold (2bytes Unit： 1Lux)	Reserved (2Bytes,Fixed 0x00)
ConfigRepo rtRsp		0x81		Status(0x00 _success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfig ReportRsp		0x82		MinTime(2 bytes Unit:s)	MaxTim e(2byte s	BatteryChang e(1byte Unit:0.1v)	Illuminanceth reshold (2bytes Unit：	Reserved (2Bytes,Fixed 0x00)

					Unit:s)		1Lux)	
ConfigReportReq	R718G	0x01	0x1E	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Illuminancechange(4bytes Unit： 1Lux)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfigReportReq		0x02		Reserved (9Bytes,Fixed 0x00)				
ReadConfigReportRsp		0x82		MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Illuminancechange(4bytes Unit： 1Lux)	
SetSunlightSampleRangeReq		0x03		RangeSetting（1byte，0x00:3~65000 lux 0x01:3~130000lux 0x02:3-220000lux）	Reserved (8Bytes,Fixed 0x00)			
SetSunlightSampleRangeRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetSunlightSampleRangeReq		0x04		Reserved (9Bytes,Fixed 0x00)				
GetSunlightSampleRangeRsp		0x84		RangeSetting（1byte，0x00:3~65000 lux 0x01:3~130000lux 0x02:3-220000lux）	Reserved (8Bytes,Fixed 0x00)			
ConfigReportReq	R718KB	0x01	0x23	MinTime(2bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Resistive (4bytes Unit： 1Ohm)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
ReadConfig		0x02		Reserved (9Bytes,Fixed 0x00)				

ReportReq							
ReadConfig ReportRsp		0x82		MinTime(2 bytes Unit:s)	MaxTime(2bytes Unit:s)	BatteryChange(1byte Unit:0.1v)	Resistive (4bytes Unit： 1Ohm)
ConfigReportReq	RA07 Series/R726 Series/R727 Series/ RA0716/R726 16/R7216 /RA07A Series /R726A Series /R727A/R718PA Series /R718PB Series /R718SA/R728SA/R729SA/R7	0x01	0x05/ 0x09/ 0x0D /0x35 /0x36 /0x37 /0x52 /0x53 /0x54 /0x57 /0x58 /0x5D/0x5E/0x5F/0x60/0x61/0x62/0x63/0x64/0x65/0x66/0x67/0x68/0x6A	MinTime(2 bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
ConfigReportRsp		0x81		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
ReadConfig ReportReq		0x02		Reserved (9Bytes,Fixed 0x00)			
ReadConfig ReportRsp		0x82		MinTime(2 bytes Unit:s)	MaxTime(2bytes Unit:s)	Reserved (5Bytes,Fixed 0x00)	
SetLDOSettingReq		0x03		LDO’s Altiud(2bytes)	LDO’s PSU(2bytes)	Reserved (5Bytes,Fixed 0x00)	
SetLDOSettingRsp		0x83		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
GetLDOSettingReq		0x04		Reserved (9Bytes,Fixed 0x00)			
GetLDOSettingRsp		0x84		LDO’s Altiud(2bytes)	LDO’s PSU(2bytes)	Reserved (5Bytes,Fixed 0x00)	
ORPCalibrateReq		0x05		StandORP(2bytes,86mv Or 256 mv)	Reserved (7Bytes,Fixed 0x00)		
ORPCalibrateRsp		0x85		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
PHCalibrateReq		0x06		StandPH(2bytes,0PH Or 4PH Or 9PH)	Reserved (7Bytes,Fixed 0x00)		
PHCalibrateRSP		0x86		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
NTUCalibrateReq		0x07		StandNTU(2bytes,0 or fullscalentu*10)	Reserved (7Bytes,Fixed 0x00)		
NTUCalibrateRsp		0x87		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)		
SetWireLengthReq		0x08		Lenght(2 bytes,Uni	Reserved (7Bytes,Fixed 0x00)		

	18R Series/ R718U Series/ R718S Series/ R728RSeries/ R728U Series/ R728SSeries/ R729RSeries/ R729U Series/ R729SSeries/RA0716A			t:1cm)	
SetWireLengthRsp		0x88		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)
GetWireLengthReq		0x09		Reserved (9Bytes,Fixed 0x00)	
GetWireLengthRsp		0x89		Lenght(2bytes,Unit:1cm)	Reserved (7Bytes,Fixed 0x00)
SetSoilTypeReq		0x0A		SoilType(1byte,0x00_Mineral Soil 0x01_PottingSoil 0x02_Rockwool)	Reserved (8Bytes,Fixed 0x00)
SetSoilTypeRsp		0x8A		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)
GetSoilTypeReq		0x0B		Reserved (9Bytes,Fixed 0x00)	
GetSoilTypeRsp		0x8B		SoilType(1byte,0x00_Mineral Soil 0x01_PottingSoil 0x02_Rockwool)	Reserved (8Bytes,Fixed 0x00)
SoilCalibrateReq		0x0C		WVCDelt(1byte SignedValue,Unit:1%)	Reserved (8Bytes,Fixed 0x00)
SoilCalibrateRsp		0x8C		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)
SetAckOnOffReq	ALL(0xFF)	0x0F	0xFF	ACKOnOff(1Byte 1_Ack ON 0_AckOff)	Reserved (8Bytes,Fixed 0x00)

SetAckOnOffRsp		0x8F		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)
GetAckOnOffReq		0x0E		Reserved (9Bytes,Fixed 0x00)	
GetAckOnOffRsp		0x8E		ACKOnOff(1Byte 1_AckON 0_AckOff)	Reserved (8Bytes,Fixed 0x00)
ResetReq	ALL(0xFF)	0x0D	0xFF	Reserved (9Bytes,Fixed 0x00)	
ResetRsp		0x8D		Reserved (9Bytes,Fixed 0x00)	
SetADROnOffReq	ALL(0xFF)	0x0C	0xFF	ADROnOff(1Byte 1_ADRON 0_ADROff)	Reserved (8Bytes,Fixed 0x00)
SetADRRspRsp		0x8C		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)
GetADROnOffReq		0x0B		Reserved (9Bytes,Fixed 0x00)	
GetADRRspRsp		0x8B		ADROnOff(1Byte 1_ADRON 0_ADROff)	Reserved (8Bytes,Fixed 0x00)
SetResumeNetOnOffReq	ALL(0xFF)	0x0A	0xFF	ResumeNetOnOff(1Byte 1_ResumeNetON 0_ResumeNetOff)	Reserved (8Bytes,Fixed 0x00)
SetResumeNetRsp		0x8A		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)
GetResumeNetOnOffReq		0x09		Reserved (9Bytes,Fixed 0x00)	
GetResumeNetRsp		0x89		ResumeNetOnOff(1Byte 1_Resume	Reserved (8Bytes,Fixed 0x00)

				Net ON 0_Resume NetOff)				
GetLoRaWANLibVersionReq		0x08	0xFF	Reserved (9Bytes,Fixed 0x00)				
GetLoRaWANLibVersionRsp		0x88		MajorVer(1Byte)	MinorVer(1Byte)	SubVer(1Byte)	Reserved (6Bytes,Fixed 0x00)	
SetRejoinDurationReq	ALL(0xFF)	0x07	0xFF	RejoinDuration(2Bytes Unit:1Min)		Reserved (7Bytes,Fixed 0x00)		
SetRejoinDurationRsp		0x87		Status(0x00_success)		Reserved (8Bytes,Fixed 0x00)		
GetRejoinDurationReq		0x06		Reserved (9Bytes,Fixed 0x00)				
GetRejoinDurationRsp		0x86		RejoinDuration(2Bytes Unit:1Min)		Reserved (7Bytes,Fixed 0x00)		
GetRealDateCode	ALL(0xFF)	0x05	0xFF	Reserved (9Bytes,Fixed 0x00)				
SetGlobalCalibrateReq	ALL(0xFF)	0x04	0xFF	Channel(1Byte, 0_Channel1,1_Channel2,etc)	Multiplier(2bytes,Unsigned)	Divisor(2bytes,Unsigned)	DeltValue(2bytes,Signed)	StandardValue (2bytes,Signed)
SetGlobalCalibrateRsp		0x84		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			
GetGlobalCalibrateReq		0x03		Reserved (9Bytes,Fixed 0x00)				
GetGlobalCalibrateRsp		0x83		Channel(1Byte, 0_Channel1,1_Channel2,etc)	Multiplier(2bytes,Unsigned)	Divisor(2bytes,Unsigned)	DeltValue(2bytes,Signed)	StandardValue (2bytes,Signed)
SetDwelltiemReq	ALL(0xFF)	0x02	0xFF	UpLinkDewelltimeOnoff(1Byte 1_ ON 0_Off)	DownLinkDewelltimeOnoff(1Byte 1_ ON 0_Off)	Reserved (7Bytes,Fixed 0x00)		
SetDwelltiemRsp		0x82		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)			

GetDwelltiemReq		0x01		Reserved (9Bytes,Fixed 0x00)		
GetDwelltiemRsp		0x81		UpLinkDewelltimeOnoff(1Byte 1_ ON 0_Off)	DownLinkDewelltimeOnoff(1Byte 1_ ON 0_Off)	Reserved (7Bytes,Fixed 0x00)
SetLastMessageResendtimeReq	ALL(0xFF) only used in contactswitch devicetype	0x1F	0xFF	Resendtime((1Byte,Unit:1s,range:3-254s),when 0 or 255 no resend,default is no resend	Reserved (8Bytes,Fixed 0x00)	
SetLastMessageResendtimeRsp		0x9F		Status(0x00_success)	Reserved (8Bytes,Fixed 0x00)	
GetLastMessageResendtimeReq		0x1E		Reserved (9Bytes,Fixed 0x00)		
GetLastMessageResendtimeRsp		0x9E		Resendtime((1Byte,Unit:1s,range:3-254s),when 0 or 255 no resend,default is no resend	Reserved (8Bytes,Fixed 0x00)	

Note： mintime present the sensor's sampleperiod,but dont apply on interrupted type sensor's report,such as PIR Sensor, Contact Switch Sensor ,etc.
If interrupted type sensor's state change, it send report immediately.

Ack's default value is OFF
ADR 's default value is ON
ResumeNet's default value is ON

3、 ChangeActiveMode&InfoCmd(Bi-Direction)(only valid in highdatarate)-----for CR2 CustomerSupport

FPort：0x08

Bytes	1	Var(Fix =16 Bytes)
	CmdID	NetvoxPayLoadData

0A00000000000000000000000000000000

Description	CmdID	Var(Max=16 Bytes)	
SetActiveModeReq	0x01	ActiveMode(1Byte 1_ABP ON 0_OTTA)	Reserved (15Bytes,Fixed 0x00)
SetActiveModeRsp	0x81	Status(0x00_success)	Reserved (15Bytes,Fixed 0x00)
GetActiveModeReq	0x02	Reserved (16Bytes,Fixed 0x00)	
GetActiveModeRsp	0x82	ActiveMode(1Byte 1_ABP ON 0_OTTA)	Reserved (15Bytes,Fixed 0x00)
SetAPPEUI_OTAAReq	0x03	APPEUI(8bytes)	Reserved (8Bytes,Fixed 0x00)
SetAPPEUI_OTAARsp	0x83	Status(0x00_success)	Reserved (15Bytes,Fixed 0x00)
GetAPPEUI_OTAAReq	0x04	Reserved (16Bytes,Fixed 0x00)	
GetAPPEUI_OTAARsp	0x84	APPEUI(8bytes)	Reserved (8Bytes,Fixed 0x00)
SetAPPKEY_OTAAReq	0x05	APPKEY(16bytes)	
SetAPPKEY_OTAARsp	0x85	Status(0x00_success)	Reserved (15Bytes,Fixed 0x00)
GetAPPKEY_OTAAReq	0x06	Reserved (16Bytes,Fixed 0x00)	
GetAPPKEY_OTAARsp	0x86	APPKEY(16bytes)	
SetDevAddr_ABPReq	0x07	DevAddr_ABP(4bytes)	Reserved (12Bytes,Fixed 0x00)
SetDevAdd_ABPRsp	0x87	Status(0x00_success)	Reserved (15Bytes,Fixed 0x00)
GetDevAdd_ABPReq	0x08	Reserved (16Bytes,Fixed 0x00)	
GetDevAdd_ABPRsp	0x88	DevAddr_ABP(4bytes)	Reserved (12Bytes,Fixed 0x00)
SetAPPSKEY_ABPReq	0x09	APPSKEY(16bytes)	
SetAPPSKEY_ABPRsp	0x89	Status(0x00_success)	Reserved (15Bytes,Fixed 0x00)
GetAPPSKEY_ABPReq	0x0A	Reserved (16Bytes,Fixed 0x00)	
GetAPPSKEY_ABPRsp	0x8A	APPSKEY(16bytes)	
SetNWKSKEY_ABPReq	0x0B	NWKSKEY(16bytes)	
SetNWKSKEY_ABPRsp	0x8B	Status(0x00_success)	Reserved (15Bytes,Fixed 0x00)
GetNWKSKEY_ABPReq	0x0C	Reserved (16Bytes,Fixed 0x00)	
GetNWKSKEY_ABPRsp	0x8C	NWKSKEY (16bytes)	

4、 PassThroughCmd(Bi-Direction) eg R718PC

FPort：0x0A

Bytes	1	Var
	CmdID	NetvoxPayLoadData

Description	CmdID	Var
SetPowerOnSensorTimeReq	0x01	PowerOnTime(1Byte，Unit：1s)
SetPowerOnSensorTimeRsp	0x81	Status(0x00_success)
GetPowerOnSensorTimeReq	0x02	
GetPowerOnSensorTimeRsp	0x82	PowerOnTime(1Byte，Unit：1s)
SetPollSensorPeriodReq	0x03	Period(2Byte，Unit：1s)
SetPollSensorPeriodRsp	0x83	Status(0x00_success)
GetPollSensorPeriodReq	0x04	
GetPollSensorPeriodRsp	0x84	Period(2Byte，Unit：1s-- 0xffff present no periodfunction)
SetPollSensorRawCmdReq	0x05	SensorRawCmd(Var bytes,according sensor datasheet)
SetPollSensorRawCmdRsp	0x85	Status(0x00_success)
GetPollSensorRawCmdReq	0x06	
GetPollSensorRawCmdRsp	0x86	SensorRawCmd (Var bytes,according sensor datasheet)
SensorRawCmdIndication	0x87	SensorRawCmd (Var bytes,according sensor datasheet)
SetBaudRateReq	0x08	BaudRate(1byte,（00—115200bps ，01—57600，02—38400，03—28800，04—19200，05—9600，06—4800，07—2400）)
SetBaudRateRsp	0x88	Status(0x00_success)
GetBaudRateReq	0x09	
GetBaudRateRsp	0x89	BaudRate(1byte,（00—115200bps ，01—57600，02—38400，03—28800，04—19200，05—9600，06—4800，07—2400）)