******* Please check the release notes for the firmware release that you are using for latest changes/updates. *******

Status Commands

CMD /Field	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
A?	SSID	IP Addr	Channel	Sec Type	Sec Key	DHCP	Lease	Status							
B?	I/F	SPI Mode	DRDY PIN												
C?	SSID	PSWD	Sec Type	DHCP	IP Ver	IP Addr	Mask	Gateway	DNS1	DNS2	Retries	Auto Conn	Auth	CC	Status
F?	Repeats	Delay													
G?	GPIO0	GPIO1	GPIO2	GPIO3	GPIO4	ADC0	ADC1	ADC2	ADC3	ADC4	CFG1	CFG2	WAKEUP		
I?	PID	FW Rev	API Rev	Stack Rev	RTOS Rev	CPU CLK	Prd Name								
P?	Protocol	Client IP	Local Port	Host IP	Rem Port	TCP Sever	UDP Sever	Backlogs	Accept loop	Read Mode	TCP KA	TCP KA TTI			
R?	NOB	Timeout	Rec Mode												
S?	NOB	Timeout													
T?	Target IP	Repeats	Delay												
U?	Port	baud	Width	Parity	Stop	Mode									
Z?	Config	WPS Pin	VID/PID	MAC	AP IP	PS Mode	Radio	Cur Beacon	Pre Beacon	Prd Name					

Command Formats

Command	*Delimiter*	*Payload*	*Delimeter*
2 Char CMD	=	Req Data	\r[1]
2 Char CMD	=	F1,F2,F3[2]	\r[1]
2 Char CMD	\r[1]		

Note: \r [1] terminates the command, if the command requires additional data after the \r [1] it is not be termnitated

Response Formats

Delimeter	*Payload*	*Delimeter*	*Return*	*Delimeter*	*Prompt*
\r\n[1]	Data	\r\n[1]	OK	\r\n[1]	>sp[3]
\r\n[1]	Error Type	\r\n[1]	Usage	\r\n[1]	>sp[3]

Note: You must wait for the completeion of the command berfore sending the next

S0/S3 Format

Command	*Delimiter*	*Payload*	
S3	=X\r[1]	Binary Data	
		(1-1460 bytes)	
S0	\r[1]	Binary Data	Legacy

X=Number of Bytes

How to reset factory space

1. Z3=0 Select factory space
2. Z2 Clear settings
3. ZR or RSTN Reset

How to save parameters

1. Set parameter
2. Z1 Saves all current settings

Ex. Set UART baud

U2=19200 Set baud rate to 19200
Z1 Save all current settings

Next time the module is reset or power up the baud rate will be 19200.

How to join a network

1. Set Access Point SSID
2. Set Access Point Password
3. Set Access Point Security Mode
4. Use DHCP?
5. Join Network

Ex.

C1=eS-WiFI_Demo	Set SSID
C2=LetMeInNow	Set Password
C3=4	WPA2-Mixed
C4=1	Use DHCP
C0	Join

How to setup a TCP Comm Server(Multi-Accept)

1. Set Protocol to TCP
2. Set Local port number
3. Start TCP Comm Sever

EX.

P1=0	Select TCP Protocol
P2=80	Set Port 80
P5=11	Start TCP Comm Server
P5=10	When current closes,wait for next

How to start/shutdown Soft AP Direct Connection

EX.

AD	Start SoftAP,DNS,DHCP,CSO Server
AE	Stop SoftAP,DNS.DHCP,CSO Server

How to setup a UDP Comm Sever

1. Set Protocol to UDP
2. Set Local port number
3. Start UDP Comm Sever

EX.

P1=1	Select UDP Protocol
P2=5024	Set Port 5024
P5=1	Start UDP Comm Server

How to Start/Stop SoftAP-Configuration

EX.

A0	Start SoftAP-Config
ctrl-Q	Quit SoftAP-Config

How to send/receive data

1. Join Network (see How to join a network)
2. Setup a TCP/UDP connection (see How to setup a TCP/UDP Comm Server/Client)
3. Send or Receive data

EX.

S3=10\r0123456789 Send Data
or
R0\r Receive Data

How to setup a TCP Client

1. Set Protocol to TCP
2. Set Remote Host IP Address
3. Set Remote Port
4. Start TCP Client

EX.

P1=0	Select TCP Protocol
D0=192.168.1.2	Set Host IP Address
P4=8001	Set Port 8001
P6=1	Start TCP Client

How to setup a UDP Client

1. Set Protocol to UDP
2. Set Remote Host IP Address
3. Set Remote Port
4. Start UDP Client

EX.

P1=1	Select UDP Protocol
D0=192.168.1.2	Set Host IP Address
P4=8001	Set Port 8001
P6=1	Start UDP Client

Note 1: \r = Carridge Return, \n=New Line 2: F1,F2,F3 refer separate data fields. 3: sp =space

How to Load RootCA, Certificate and Key into Flash

PG=x,0,<nob>\r<data bytes>

nob = number of data byte being sent

data bytes = data bytes in the RootCA, Certifcate/Key(must equal nob)

EX. AWS MQTT (Cert Set 2 default)

PG=2,0,1731\r<1731 data bytes>	Load RootCA in Cert Set 2
PG=2,1,1224\r<1224 data bytes>	Load Certificate in Cert Set 2
PG=2,2,1679\r<1679 data bytes>	Load Key in Cert Set 2

Note: 'PF' command is used to change Cert Set

How to start/stop a AWS IoT Connection

1. Load RootCA, Certificate and Key into Flash
2. Setup AWS IoT (MQTT) connection

EX.

P0=0	Select Socket 0 (only required if using more than one socket)
P1=4	Set MQTT protocol
PM=0,$aws/things/<Your Thing>/shadow/update	Set Publish topic
PM=1,$aws/things/<Your Thing>/shadow/update/accepted	Set Subscribe topic
PM=2,2	Set MQTT Security
PM=5,client_test_id0	Set unique client ID
D0=<Your Thing ID>.iot.us-east-1.amazonaws.com	Get IP address(automatically fill Host IP addrerss)
P4=8883	Set Remote Port
P6=1	Connect
P6=0	Stop(Disconnect)

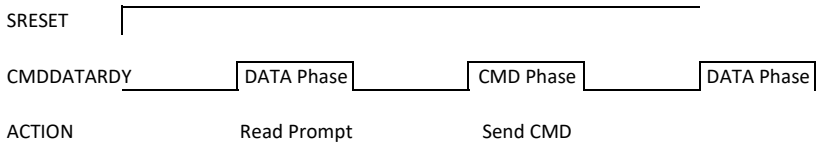
Note: When using AWS Iot to get data to be accepted by the shadow in must in JSON format.

Using SPI Host Interface

1. The SPI host interface is a slave interface (SCK proived by host)
2. It is a synchronous interface (a CMDDATARDY signal is use to maximize performance)

EX.

After System Reset, the CMDDATARDY signal will raise indicating the DATA phase



Note: DATA Phase will end(CMDDATRDY lowers) when read is complete

CMD Phase will end(CMDDATRDY lowers) when the command has completed

3. It is a 16-bit interface (the complete command (including \r and data must be padded to a even number of bytes)
4. The pad byte is 0x15
5. The interface is little endian (byte order is ls, ms)

EX.

P0=0\r	0P 0= 0x15\r	Padding
P4=8883\r	4P 8= 88 \r3	No Padding

Basic Country Codes (Certified)

Canada	CA or CA/0
France (Use for all EU countries)	FR or FR/0
United States	US or US/0

Note: See Certified Country Code Tab for complete list

Most Commonly Used Commands:

Commnad	*Description*	*Example(s)*
A0	Start SoftAP - Configuration	A0\r
AD	Start SoftAP - Direct Mode	AD\r
AE	Stop SoftAP - Direct Mode	AE\r
C0	Connect to AP and network	C0\r
C1	Set SSID	C1=ssid\r
C2	Set Password	C2=password\r
C3	Set Security Mode (0/1/2/3/4/5)	C3=4\r
C4	Set DHCP mode, 0/1	C4=1\r
CD	Disconnect from AP and network	CD\r
CS	Check AP/Netork Connected	CS\r
D0	DNS Lookup(accept IP address also)	D0=www.google.com\r
P0	Set Socket, 0/1/2/3	P0=0\r
P1	Set Protocol, 0/1/2/3/4	P1=4\r
P2	Set Server Port	P2=8080\r
P4	Set Client Port	P4=8883\r
P5	Control Local Server	P5=11\r or P5=10\r or P5=0\r
P6	Control Client	P6=1\r or P6=0\r
PF	Set Cert Set, 0/1,0/1/2/3	PF=0,0\r or PF=1,2\r
PG	Load Cert Set, 0/1/2/3,0/1/2,XXXX	PG=2,0,XXXX\r<XXXX bytes>
R0	Receive data	R0\r
R2	Receive timeout	R2=100\r
S2	Transmit timeout	S2=100\r
S3	Transmit data	S3=XXXX\r<XXXX bytes>
U0	Change baud rate	U0\r
U2	Set baud rate	U2=1152000\r
Z1	Save settings	Z1\r
Z2	Clear setting	Z2\r
Z3	Switch setting space, 0/1	Z3=0\r
ZR	Software System Reset	ZR\r

Inventek Systems
Embedding Connectivity Everywhere

					Release		Modules	
Command	**=** **Function**	**OPTIONS**	**Default**	Exapmles/Comments	C6.1.2.0	C6.2.1.8	ISM43340	ISM4343
BLE Commands								
J0	Set Device Name	11 characters	ISM BLE SPP	J0=MyDevice\r	✓		✓	✓
J1	Set Advertisement Name	8 characters	Module dependent	J1=MyDev\r	✓		✓	✓
J2	Set Manufacture Name	12 characters	None	J2=MyCompany\r	✓		✓	✓
J3	Set Model Number	16 characters	None	J3=Model1\r	✓		✓	✓
J4	Set Serial Number	16 characters	None	J4=00000001\r	✓		✓	✓
J5	Set Hardware Version	12 characters	None	J5=1.0.0\r	✓		✓	✓
J6	Set Firmware Version	12 characters	None	J6=1.0.0\r	✓		✓	✓
J7	Set Software Version	12 characters	None	J7=1.0.0\r	✓		✓	✓
JA	Get Avavable Receive Bytes	None	None	JA\r	✓		✓	✓
JB	Report Battery Level	0-100	None	JB=100\r (100 percent)	✓		✓	✓
JC	Async Read Mode	0/1	0	JC=0\r (Off:'JA','JE' and 'JR' commands supported), JC=1\r (On:[BLE]\r\n<data>\r\n>sp	✓		✓	✓
JE	Get Last Error	None	None	JE\r	✓		✓	✓
JK	Get Connect Status	None	None	0=No Device Connected, 1=Device Connected		✓		
JL	Set Advertising Rate	1-67	1	Actual rate = setting * 30ms, JL=67\r would be 67 * 30ms = 2010ms		✓		
JM	Get MAC Address	None	None	JM\r	✓		✓	✓
JP	Strat/Stop Device	0/1	None	JP=0\r (Stop), JP=1\r (Start)	✓		✓	✓
JR	Receive Data	None	None	JR\r	✓		✓	✓
JS	Send Data	XXX,<XXX data bytes>	None	JS=10,0123456789\r (255 bytes max.)	✓		✓	✓
JU	Set 128-bit UUIDs	16-bytes,16-bytes,16-bytes	None	JU=Service UUID, RWN UUID, Write Only UUID UUID = 0000FF12-0000-1000-8000-00805F9B34FB		✓		
JV	Set Advertising Characteristic	3/7/20/21,UUID	7, 0000FF12-0000-1000-8000-00805F9B34FB	Type,UUID 3=16-bit service UUID complete list, 7=128-bit service UUiD complete list 20=16-bit service UUID list, 21=128-bit service UUiD list		✓		
JW	Write Data	<nob>\r<XXX data bytes>	None	Write nob(number of bytes) of data to server, JW=12\rISM:40,10\r\n		✓		
J?	Show Settings	None	None	J?\r	✓		✓	✓

Status Commands

CMD /Field	***1***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***	***13***	***14***	***15***
J?	GAP Name	Adv Name	Manf Name	Model No.	Serial No.	HW Revision	FW Revision	SW Revision						

Setup Device

```
J0=MyDevice
J1=MyDev
J2=MyCompany
J3=Model1
J4=100001
J5=1.0.0
J6=1.0.0
J7=1.0.0
```

Start Device

```
JP=1
```

Send Battery Level

```
JB=99                          Battery at 99%
```

Send/Receive Data

```
while (loop 1= 1)
{
   JA                          Get available bytes
   If (available_bytes != 0)
   {
      JR                       Read bytes
      If (bytes[0]== 0xff) break;
      JS=11,Hello World        Send 11 bytes
   }
}
```

Stop Device

```
JP=0
```

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Command	=	Function	OPTIONS	Default	Comments	Release C3.5.2.5	Release C6.2.1.8
Internal Access Point Commands							
A0		Activate Access Point	None	******	AP, DHCP, DNS, & Web Server	✓	✓
A1		Set AP Security Mode	0,2,3,4	0	0=Open, 2=WPA, 3=WPA2-AES, 4=WPA2 Mixed	✓	✓
A2		Set AP Security Key	key	None	32 Alphanumeric Characters	✓	✓
A7		Set AP Mask	XXX.XXX.XXX.XXX	255.255.255.0			✓
AA		Get AP DHCP Cached Address(es)	None	******		✓	✓
AC		Set AP Channel	0-11, 5GHz:36-48x4, 149-165x4	0	Dependent on Country Code **(0-Auto Channel 2.4GHz, 50-Auto channel 5GHz)**	✓	✓
AD		Activate AP Direct Connect Mode	None	******	AP & DHCP & Connection Web Server	✓	✓
AE		Exit AP Direct Connect Mode	None	******	Shutdown AD mode	✓	✓
AL		Set AP DHCP Lease Time	0-255	24	**Note: You must wait for the completeion of the command berfore sending the next**	✓	✓
AR		Get RSSI of AP clients	None	******		✓	✓
AS		Set AP SSID	0/1,SSID	******	0=No MAC/1=Use Mac, 32 Alphanumeric Characters	✓	✓
AT		Set Maximum number of Clients	1-4	4		✓	✓
A?		Show Settings	None	******		✓	✓
Host Interface Commands							
B2		Set SPI Mode	0-3	0	0(CPHA=0,CPOL=0), 1(CPHA=0,CPOL=1), 2(CPHA=1,CPOL=0), 3(CPHA=1,CPOL=1)	✓	✓
B3		Select SPI Ready Pin	0-1	0	0=SDRDY(ADC0) pin, 1=SDRDY(ADC0) and WKUP pin	✓	✓
B?		Show Setting - Comm Interface	None	******	USART	✓	✓
Connect Commands							
C0		Join network	None	******		✓	✓
C1		Set SSID		None		✓	✓
C2		Set Passphrase		None	WEP: 64: Enter 5 characters or 10 Hex digits exactly 128: Enter 13 characters or 26 Hex digits exactly (see CE command) 63 Character: WPA/WPA2-AES/WPA2-Mixed 64 Hex Characters: WPA-Mixed	✓	✓
C3		Set Security Type	0-4	None	0=Open, 1=WEP, 2=WPA, 3=WPA2-AES, 4=WPA2 Mixed	✓	✓
C4		Set DHCP	TRUE/FALSE	TRUE	0 = False, 1 = True	✓	✓
C5		Set IP Version	IPv4/IPv6	IPv4	0 = IPv4, 1=IPv6	IPv4 Only	IPv4 Only
C6		Set IP Address	XXX.XXX.XXX.XXX	192.168.1.1		✓	✓
C7		Set IP Mask	XXX.XXX.XXX.XXX	255.255.255.0		✓	✓
C8		Set Gateway	XXX.XXX.XXX.XXX	192.168.1.1		✓	✓
C9		SET DNS Server 1	XXX.XXX.XXX.XXX	255.255.255.255		✓	✓
CA		SET DNS Server 2	XXX.XXX.XXX.XXX	255.255.255.255		✓	✓
CB		Set Join Retries	1 - 10	*	1.3.5 - 5, 2.4.0 - 2	✓	✓
CC		Auto Connect/**Reconnect**	0-3	Disable	0=Disabled, 1=Connect, 2=Reconnect, 3=Both **(2 & 3 C2.5.0 and higher)** Note: Network info must by save to flash pior to power off ('Z1' command)	✓	✓
CD		Disconnect from Network	None	******		✓	✓
CE		Set Authorization Type	0/1	0	0=Open, 1=Shared Key	✓	✓
CF		Set/Clear Packet Filter	XX	00	00=Off, 01=ARP, 02=SNMP, 40=IPv4, 80=Multicast	✓	✓
CJ		Join/Leave IGMP Group	X,XXX.XXX.XXX.XXX	None	0=Leave/1=Join,IP Address	✓	✓
CM		Add/Remove MAC to/from Mcast List	0/1,XX:XX:XX:XX:XX:XX	******	0=Remove, 1=Add	✓	✓

CN	Set Country Code	XX, C3.5.2.5: XX/RRR	US/0	C3.5.2.5 or greater now limited to CR,FR(EU),US,JP(43362 only)	✓	✓
CR	Get RSSI of attached AP	None	******	0=Not join to network, RSSI otherwise	✓	✓
CS	Get Connection Status	None	******	0=Not Connected, 1=Connected	✓	✓
CT	Set WPS Push Button GPIO	#/!/? Or 0-9,0-1	******	<#-Clear/!-Status/?-Info or pin(0-9), mode(0-Push,1-Set Status)> Set WPS PB pin	✓	✓
CV	Get Connected rate	None	******	Note: This is not equivalent to throughput	✓	✓
CW	Connect using WPS Pin/PBC	0/1	******	0=Pin, 1=PBC(Push Button Configuration)	✓	✓
CY	Security Key Privacy	0/1	0	0-Visable (Setting to 0 will clear key/pswd, 1-Set (C? will not show key/pswd)		✓
CZ	Fast Connect	C/0/1 or Band,Chnl,BSSID	0	C-Clear,0-Disable,1-Enable or Band(0-5GHz/1-2.4GHz),Chnl(1-14,36-165), BSSID Note: 5GHz when supported by radio, 36-48 x4, 149-165 x4		✓
C?	Show Settings	None	******		✓	✓
DNS Commands						
D0	DNS Look up		******	<0-63> Alphanumeric Characters	✓	✓
D1	Set mDNS state and name	0/1,Device Name(32 Chars)	******		✓	✓
D2	Set mDNS services	0/1,Instance,Service,Port,TTl	******	<0/1>,<Instance(32 chars)>,<Service(32 Chars),<Port>,<TTl>	✓	✓
Find Networks Commands						
F0	Find Networks	None/2	******	2=Asynchornous messages, SPI C3.5.2.5 and greater	2	✓
F1	Set Repeat	0-255	0		✓	✓
F2	Set Delay	0-5000 ms	1000		✓	✓
F3	Set Scan Channel	0=none, 1-14	1		✓	✓
F4	Set Scan BSSID	XX:XX:XX:XX:XX:XX	******		✓	✓
F5	Set Scan SSID	SSID(32 Chars)	******	#-Clear	✓	✓
F6	Set Scan Band	0-2	2	0-5GHz, 1=2.4GHz, 2-Both(Default)	✓	✓
F7	Set Scan SSID by Channel	#/SSID,Channel	******	#-Clear/ 1-32 char SSID, Channel		✓
FA	Set Auto-channel Band	0-1	1	0=5GHz, 1=2.4GHz		✓
F?	Show Settings	None	******		✓	✓
GPIO/ADC Commands						
G2	Read GPIO/ADC	Pin #,Type	******	Types: 2=Button, 3=Digital Input, 5 =ADC	✓	✓
G3	Write GPIO	Pin #,Type,Value	******	Types: 1=LED, 4=Digital Output	✓	✓
G4	GPIO Setup	Pin #,Type	******	Types: 1=LED, 2=Button, 3=Digital Input, 4=Digital Output, 5=ADC	✓	✓
GT	Get UTC Time	None	******	internet access - UTC time (XXXXXXXXXX), otherwise ms since power up(XXXXX)	✓	✓
G?	Show Settings	None	******		✓	✓
Help Commands						
?	Show Help	None	******	Not available in SPI firmware	✓	✓
H0	Show comment	None	******	For comment output captures		✓
HR	Get Radio Firmware/CLM version	None	******	Detailed information		✓
HT	Get current time in ms	None	******	Time Stamp		✓
Information Commands						
IC	Is Endpoint Configured	Endpoint	******	64 characters max, for use with CloudBourne App	✓	✓
I?	Show Revision Information	None	******		✓	✓
Manufacturing Commands						
M0	Complaince, Set Channel & Rate	channel,rate	******	2.4GHz: Channel(1-14), Rate(7(n),11(b),54(g)) 5GHz:	MFG Ver.	MFG Ver.
M1	Complaince, Start Test	None	******	Start Complaince test using settings from M0 & M3 commands	MFG Ver.	MFG Ver.
M2	Complaince, Stop Test	None	******	Stop complaince test	MFG Ver.	MFG Ver.
M3	Complaince, Set Maximum Power	power	******	Power in 0.25dB steps, ex. 18dB, 0.25dB * 72 = 18dB	MFG Ver.	MFG Ver.

M4	Compliance, Get Maximum Power	None	None		MFG Ver.	MFG Ver.
M5	Compliance, Set Test Country	See Test Country Codes				MFG Ver.
M6	Frequency Accuracy Test	1-14,36-48 x4, 149-165 x4	None			MFG Ver.
M7	ETSI Standby Mode	0/1	None	0=Stop, 1=Start		MFG Ver.
Message Commands						
MF	Test External Serial Flash	None	******	Erase/Write/Read/Verify test	✓	✓
MJ	MFG Test (Join/RSSI/PING)			SSID=ism_mfg_test, Security=Open, DHCP Enabled	✓	✓
MR	Message Read (SPI Only)	None	******	Read asynchronous event messages	✓	✓
MS	Suppress Async Message - DHCP	0/1	0	0=Normal/1=Suppress/C3.5.2.5:2=Norm/TCP Server Sup,3=Sup/TCP Server Sup	2/3	✓
MT	Set Message Type	0/1	0	0=Normal/1=Simple (C2.5.0.x = 0, C3.5.2.x = 1)	✓	✓
Protocol Commands						
P0	Set Socket	0-3	0	Sets the communication socket (P1-P8 are stored for each socket)	✓	✓
P1	Set Transport protocol	0-3(4)	0	0 - TCP, 1 - UDP, 2 - UDP LITE, 3 - TCP-SSL **(2.4.0 and above), 4-MQTT(3.5.2.X and above)**	✓	✓
P2	Set Local Port	0-65536	None		✓	✓
P3	Remote Host IP Address	XXX.XXX.XXX.XXX	None		✓	✓
P4	Remote Port	0-65536	None		✓	✓
P5	Stop/Start TCP Server	0-1	0	0 - stop, 1 - start, 10 - Close handle & get next request, 11 - Start Multi-Accept	✓	✓
P6	Stop/Start TCP Client	0-1	0	0 - stop, 1 - start	✓	✓
P7	Start/Stop Request TCP Accept	0-3	0	0 - stop, 1 - start Accept loop, 2 - close current socket, 3 - Next TCP Accept Request **(Use P5 MA)**	✓	Use P5 CMD
P8	Listen backlog	0-17	8		✓	✓
P9	Certification Verification	0/1/2	0	0-None,1-Optional,2-Required	✓	✓
PA	Set Custom CA Name	0/1,Name		Index(0/1),64 character Name	✓	✓
PB	Root CA Verfication Result	0-1	0	0-Terminate SLL conection, 1-Error message, No termination	✓	✓
PC	Security Certificates	0/1,R/W\r<Write Data>	******	Read/Write Security Certificates	✓	Depricated
PD	Security Keys	0/1,R/W\r<Write Data>	******	Read/Write Security Keys	✓	Depricated
PE	Get Certificate Set Availability	None	******	Gets certificate set availability	✓	✓
PF	Set Active Certificate Set	0-1,0-2	TLS=0, AWS=2	0=TLS/1=AWS,Certificate Set 0-2	✓	✓
PG	Program CA/Certificate/Key	Cert Set,Type,Len\rdata bytes	******	Cert Set(0-2),Type(0=CA,1=Cert,2=Key),Length of Cert	✓	✓
PK	TCP Keep-alive	0/1,250-7200000	1-OFF	0(Enable)/1(Disable), 250-7200000 ms	✓	✓
PM	MQTT Attributes	0/1/2/3/4/5/6		0-Publish Topic, 1-Subcribe Topic, 2-Security, 3-User Name, 4-PSWD, 5-Client ID, 6=KA	✓	✓
PX	UART Streaming	0/1,0-9	******	0 = Server, 1 = Client,0-9 Exit Streaming gpio pin	✓	✓
PY	Set TCP API Message Timeout	#/?/0-65535	10000	#-Restore Default, 0 - 65535, ?-Info	✓	✓
P?	Show Settings	None	******		✓	✓
Receive Data Commands						
R0	Receive Data		None		✓	✓
R1	Set Data Packet Size	1 - 1460			✓	✓
R2	Receive Timeout	0 - 30000 ms			✓	✓
R4	Receive Data with NOB			Nunber of bytes return as 1st 4 characters followed by data	✓	✓
R?	Show Setttings	None	******		✓	✓
Send Data Commands						
S0	Send Data		None		✓	✓
S1	Set Data Packet Size	1 - 1460			✓	✓
S2	Send Timeout	0 - 30000 ms			✓	✓
S3	Send Data with Packet Size	1-1460	None	XXXX=Packet Size\r<Data>	✓	✓
SF	SPI Flash CS Pin	0-5	0	0-SSN Pin(defualt), 1-5 = GPIO0-4	✓	✓
S?	Show Settings	None	******		✓	✓

Ping Commands						
T0	Ping		None		✓	✓
T1	Set Target Address	XXX.XXX.XXX.XXX	None		✓	✓
T2	Set Repeat	0-65535	0	C2.5.0 (0 - 65534, 65535=Continuous(ctrl-c to exit))	✓	✓
T3	Set Delay	0-5000ms	0		✓	✓
T?	Show Settings	None	******		✓	✓
UART Commands						
U0	Activate Change	None	******		✓	✓
U2	Set BAUD Rate	1200 - 2073600	115200	1200,2400,4800,9600,19200,38400,57600,115200,230400,460800,921600,	✓	✓
				1152000,1382400,1612800,1843200,2073600 (M3G Only)	✓	✓
U?	Show Settings	None	******		✓	✓
WLAN Commands						
WL	Set WLAN Link/Activity LEDs	#/? Or 0-9,0-9,0/1	******	#-Clear/?-Info or Link LED(0-9), Acitivity LED(0-9),Polarity(0=AL/1=AH)	✓	✓
Systems	**Factory Modes**					
Z0	Reset to Factory Defaults	None	******	Restores current setting to factory default	✓	✓
Z1	Save Current Settings	None	******	Saves current settings based upon setting from Z3 command	✓	✓
Z2	Clear Saved Settings	None	******	Based upon setting from Z3 command, Will not clear factory space when locked.	✓	✓
Z3	Set Factory/User Space	0/1	Factory	0= Factory Space, 1=User Space, factory space locked by ZF Command	✓	✓
Z4	Set MAC Address FS/US	XX:XX:XX:XX:XX:XX	00:22:F4:09:0E:08	Set MAC address	✓	✓
Z5	Get MAC Address			Get current MAC address	✓	✓
Z6	Set AP IP Address FS/US	XXX.XXX.XXX.XXX	192.168.1.1	Set Access Point address	✓	✓
Z7	Set WPS Pin Number FS/US	XXXXXXXX	12345678	Set WPS pin (WPS feature to be added in future release)	✓	✓
Z8	Get WPS Pin Number FS/US			Get current WPS pin (WPS feature to be added in future release)	✓	✓
ZC	Clear Factory Switch	Unset, bit7 = 0	******	***** EVB Onlys, Not in production releases *****	✓	✓
ZD	Flash Dump	0,1		Dump based upon setting from Z3 command	✓	✓
ZF	Set Factory Switch	Set, bit7 = 1	******	Once Set FS settings are locked	✓	✓
ZL	Factory Lock Status					
ZN	Set Product Name	None	Inventek Systems eS-WiFi	40 Characters + NULL	✓	✓
ZO	OTA Firmware Update	None	******	<1 - 128>\r<URL Bytes(http://domain:port/bin_file_path)>	✓	✓
ZP	Power Management	Feature, Enable/Disable/Interval		Feature: 0 - WiFi On/Power Save OFF, 1 - Power Save Mode,	✓	✓
				2 - Beacon Listen Interval (1-60), 3 - WiFi OFF,		
				4 - WiFi Reset, ? PM Status		
				5 - Stop Mode		
				6 ,n - Sleep (0 to 3600000) in ms **(C2.5.0 and above)**	✓	✓
ZR	Reset Module	None	******	Software controlled reset.	✓	✓
ZS	Get Module Serial Number	None			✓	✓
ZT	Set Module Serial Number	16 characters	******		✓	✓
ZU	Firmware Upgrade	None	******	Starts firmware upgrade using internal bootloader	✓	✓
ZV	Set OTA Method	None	******	0-Local(via SoftAP), 1-Internet Server, 2-KCD Server	✓	✓
Z?	Show State	None	******	Based upon setting from Z3 command	✓	✓
$$$	Enter CMD Mode	None	******	Human readable responses	✓	✓
---	Exit CMD Mode	None	******	Machine readable responses	✓	✓

Note	
FS	Factory Switch feature
*	Not Supported, but does not return an error.

Certified County Codes

C3.5.2.5, C6.2.1.8 ISM43362

Country	Code
CANADA	CA or CA/0
UNITED_STATES	US or US/0
FRANCE(use for all EU)	FR or FR/0
JAPAN	JP or JP/0

C3.5.2.5, C6.2.1.8 ISM43340

Country	Code
CANADA	CA or CA/0
FRANCE(use for all EU)	FR or FR/0
UNITED_STATES	US or US/0

C6.2.1.8 ISM43340

ALBANIA	AL or AL/0
BOLIVIA	BO or BO/0
CHINA[1]	CN or CN/0
COLOMBIA[1]	CO or CO/0
HONDURAS	HN or HN/0
KOSOVO	0A or 0A/0
MYANMAR	MM or MM/0
PERU	PE or PE/0
RUSSIA[1]	RU or RU/0
THAILAND	TH or TH/0
UNITED_ARAB_EMIRATES	AE or AE/0
UZBEKISTAN	UZ or UZ/0
VENEZUELA	VE or VE/0
VIETNAM	VN or VN/0

C6.2.1.8 ISM4343

Country	Code
CANADA	CA or CA/0
UNITED_STATES	US or US/0
FRANCE(use for all EU)	FR or FR/0

1. At time of release of C62.1.8 China(CN), Columbia(CO), and Russia(RU) are in process. Please check with Inventek Systems that certification has been completed prior to shipping products to those countries.

For Manufacturing Firmware Only

Country	Code	Country	Code	Country	Code
AFGHANISTAN	AF	GREECE	GR	OMAN	OM
ALBANIA	AL	GRENADA	GD	PAKISTAN	PK
ALGERIA	DZ	GUADELOUPE	GP	PALAU	PW
AMERICAN_SAMOA	AS	GUAM	GU	PANAMA	PA
ANGOLA	AO	GUATEMALA	GT	PAPUA_NEW_GUINEA	PG
ANGUILLA	AI	GUERNSEY	GG	PARAGUAY	PY
ANTIGUA_AND_BARBUDA	AG	GUINEA	GN	PERU	PE
ARGENTINA	AR	GUINEA_BISSAU	GW	PHILIPPINES	PH
ARMENIA	AM	GUYANA	GY	POLAND	PL
ARUBA	AW	HAITI	HT	PORTUGAL	PT
AUSTRALIA	AU	HOLY_SEE_VATICAN_CITY_STATE	VA	PUETO_RICO	PR
AUSTRIA	AT	HONDURAS	HN	QATAR	QA
AZERBAIJAN	AZ	HONG_KONG	HK	REUNION	RE
BAHAMAS	BS	HUNGARY	HU	ROMANIA	RO
BAHRAIN	BH	ICELAND	IS	RUSSIAN_FEDERATION	RU
BAKER_ISLAND	0B	INDIA	IN	RWANDA	RW
BANGLADESH	BD	INDONESIA	ID	SAINT_KITTS_AND_NEVIS	KN
BARBADOS	BB	IRAN_ISLAMIC_REPUBLIC_OF	IR	SAINT_LUCIA	LC
BELARUS	BY	IRAQ	IQ	SAINT_PIERRE_AND_MIQUELON	PM
BELGIUM	BE	IRELAND	IE	SAINT_VINCENT_AND_THE_GRENADINES	VC
BELIZE	BZ	ISRAEL	IL	SAMOA	WS
BENIN	BJ	ITALY	IT	SANIT_MARTIN_SINT_MARTEEN	MF
BERMUDA	BM	JAMAICA	JM	SAO_TOME_AND_PRINCIPE	ST
BHUTAN	BT	JAPAN	JP	SAUDI_ARABIA	SA
BOLIVIA	BO	JERSEY	JE	SENEGAL	SN
BOSNIA_AND_HERZEGOVINA	BA	JORDAN	JO	SERBIA	RS
BOTSWANA	BW	KAZAKHSTAN	KZ	SEYCHELLES	SC
BRAZIL	BR	KENYA	KE	SIERRA_LEONE	SL
BRITISH_INDIAN_OCEAN_TERRITORY	IO	KIRIBATI	KI	SINGAPORE	SG
BRUNEI_DARUSSALAM	BN	KOREA_REPUBLIC_OF	KR/1	SLOVAKIA	SK
BULGARIA	BG	KOSOVO	0A	SLOVENIA	SI
BURKINA_FASO	BF	KUWAIT	KW	SOLOMON_ISLANDS	SB
BURUNDI	BI	KYRGYZSTAN	KG	SOMALIA	SO
CAMBODIA	KH	LAO_PEOPLES_DEMOCRATIC_REPUBIC	LA	SOUTH_AFRICA	ZA
CAMEROON	CM	LATVIA	LV	SPAIN	ES
CANADA	CA	LEBANON	LB	SRI_LANKA	LK
CAPE_VERDE	CV	LESOTHO	LS	SURINAME	SR
CAYMAN_ISLANDS	KY	LIBERIA	LR	SWAZILAND	SZ
CENTRAL_AFRICAN_REPUBLIC	CF	LIBYAN_ARAB_JAMAHIRIYA	LY	SWEDEN	SE
CHAD	TD	LIECHTENSTEIN	LI	SWITZERLAND	CH
CHILE	CL	LITHUANIA	LT	SYRIAN_ARAB_REPUBLIC	SY
CHINA	CN	LUXEMBOURG	LU	TAIWAN_PROVINCE_OF_CHINA	TW
CHRISTMAS_ISLAND	CX	MACAO	MO	TAJIKISTAN	TJ
COLOMBIA	CO	MACEDONIA_FORMER_YUGOSLAV_REPUBLIC_OF	MK	TANZANIA_UNITED_REPUBLIC_OF	TZ
COMOROS	KM	MADAGASCAR	MG	THAILAND	TH
CONGO	CG	MALAWI	MW	TOGO	TG
CONGO_THE_DEMOCRATIC_REPUBLIC_OF_THE	CD	MALAYSIA	MY	TONGA	TO
COSTA_RICA	CR	MALDIVES	MV	TRINIDAD_AND_TOBAGO	TT
COTE_DIVOIRE	CI	MALI	ML	TUNISIA	TN
CROATIA	HR	MALTA	MT	TURKEY	TR
CUBA	CU	MAN_ISLE_OF	IM	TURKMENISTAN	TM
CYPRUS	CY	MARTINIQUE	MQ	TURKS_AND_CAICOS_ISLANDS	TC
CZECH_REPUBLIC	CZ	MAURITANIA	MR	TUVALU	TV
DENMARK	DK	MAURITIUS	MU	UGANDA	UG
DJIBOUTI	DJ	MAYOTTE	YT	UKRAINE	UA
DOMINICA	DM	MEXICO	MX	UNITED_ARAB_EMIRATES	AE
DOMINICAN_REPUBLIC	DO	MICRONESIA_FEDERATED_STATES_OF	FM	UNITED_KINGDOM	GB
ECUADOR	EC	MOLDOVA_REPUBLIC_OF	MD	UNITED_STATES	US
EGYPT	EG	MONACO	MC	UNITED_STATES_REV4	US/4
EL_SALVADOR	SV	MONGOLIA	MN	UNITED_STATES_NO_DFS	Q2
EQUATORIAL_GUINEA	GQ	MONTENEGRO	ME	UNITED_STATES_MINOR_OUTLYING_ISLANDS	UM
ERITREA	ER	MONTSERRAT	MS	URUGUAY	UY
ESTONIA	EE	MOROCCO	MA	UZBEKISTAN	UZ
ETHIOPIA	ET	MOZAMBIQUE	MZ	VANUATU	VU
FALKLAND_ISLANDS_MALVINAS	FK	MYANMAR	MM	VENEZUELA	VE
FAROE_ISLANDS	FO	NAMIBIA	NA	VIET_NAM	VN
FIJI	FJ	NAURU	NR	VIRGIN_ISLANDS_BRITISH	VG
FINLAND	FI	NEPAL	NP	VIRGIN_ISLANDS_US	VI
FRANCE	FR	NETHERLANDS	NL	WALLIS_AND_FUTUNA	WF
FRENCH_GUINA	GF	NETHERLANDS_ANTILLES	AN	WEST_BANK	0C
FRENCH_POLYNESIA	PF	NEW_CALEDONIA	NC	WESTERN_SAHARA	EH
FRENCH_SOUTHERN_TERRITORIES	TF	NEW_ZEALAND	NZ	YEMEN	YE
GABON	GA	NICARAGUA	NI	ZAMBIA	ZM
GAMBIA	GM	NIGER	NE	ZIMBABWE	ZW
GEORGIA	GE	NIGERIA	NG		
GERMANY	DE	NORFOLK_ISLAND	NF	World Wide (passive Ch12-14)	XX
GHANA	GH	NORTHERN_MARIANA_ISLANDS	MP	World Wide	XV
GIBRALTAR	GI	NORWAY	NO		