Waggle transmission packet format

Coresense packet -- protocol ver1 (one way communication)						
preamble	sequence 4 bits	protocol 4 bits	data length	data (subpackets)	CRC	postscript
0xAA	0x01 - 0x0F << 4	0x00 (protocol ver1)	0x00 - 0xFF	varies, <= 256 bytes	crc	0x55

Coresense packet -- protocol ver2 (two ways communication)								
preamble	data type 4 bits	protocol 4 bits	data length	End of Seq	squence#	data (subpackets)	CRC	postscript
0xAA	0x00 - 0x0F << 4	0x02 (protocol ver2)	0x00 - 0xFF	0 or 1	0x00 - 0x7F	varies, <= 255 bytes	crc	0x55

Coresense subpacket -- protocol ver1 (one way communication)			
sensor id	validity 1 bits	data length 7 bits	data
varies	0 or 1 of 1st bit	0x00 - 0x7F	varies, <= 128 bytes

Coresense subpacket -- protocol ver2, from plugin TO FW			
call function	acknowledge 1 bit	param length 7 bits	parameters (1st byte is sensor id)
0x00 - 0xFF	0x00 or 0x01	0x00 - 0x7F	varies, <= 16 bytes

Coresense subpacket -- protocol ver2 , FROM FW to plugin			
sensor id	validity 1 bits	data length 7 bits	data
varies	0 or 1 of 1st bit	0x00 - 0x7F	varies, <= 128 bytes

For alpha and Chem configuration

	0x31 alpha config	0x16 chem config
Start sending..	Start statement	Start statement
data	256 bytes	1514 bytes
End sending..	End statement	End statement

	data type	adpot last 4 bits
plugin --> FW	request	0x00
FW --> plugin	sensor reading	0x01
FW --> plugin	bus reading	0x02
	acknowledge	?????????????
	need ack	0x00
	read sensor	0x01

Function Type		
initSensor	0x01	Core
configureSensor	0x02	
enableSensor	0x03	
disableSensor	0x04	
readSensor	0x05	
writeSensor	0x06	
initBus	0x11	Bus
configureBus	0x12	
enableBus	0x13	
disableBus	0x14	
readBus	0x15	
writeBus	0x16	