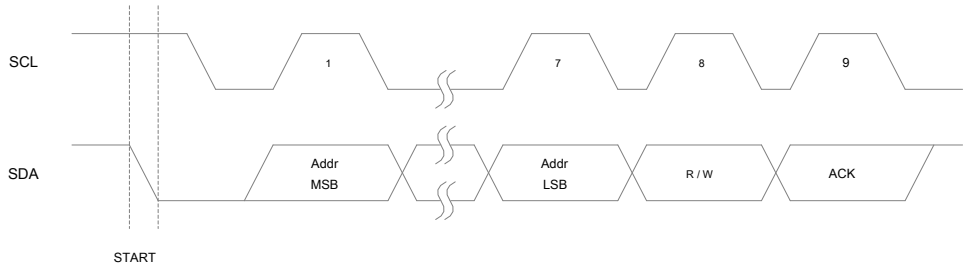
Address of the packet includes a slave address and a read or write control bits, respectively, SLA + R or SLA + W To represent.

Address byte MSB Bit occurs first. In addition to retaining Address "00000000" It was left for broadcast calls and all of the form "1111xxxx" Address formats need to be retained for future use, the other slave address can be freely assigned designer.

When a general call occurs, all slaves should ACK Cycle by pulling SDA Line to make a response. When the host needs to send the same information to a plurality of slaves in the system using the broadcast feature. When the call address plus WRITE After the bits are sent on the bus, all in response to the need to broadcast the call from the machine ACK Cycle down SDA line. All of the general call response from the receiving unit will be followed by a data packet. It should be noted that, coupled with a general call address READ Bit does not make sense, because if several slaves simultaneously transmit different data bus will bring conflict.

Address packet format as shown below:

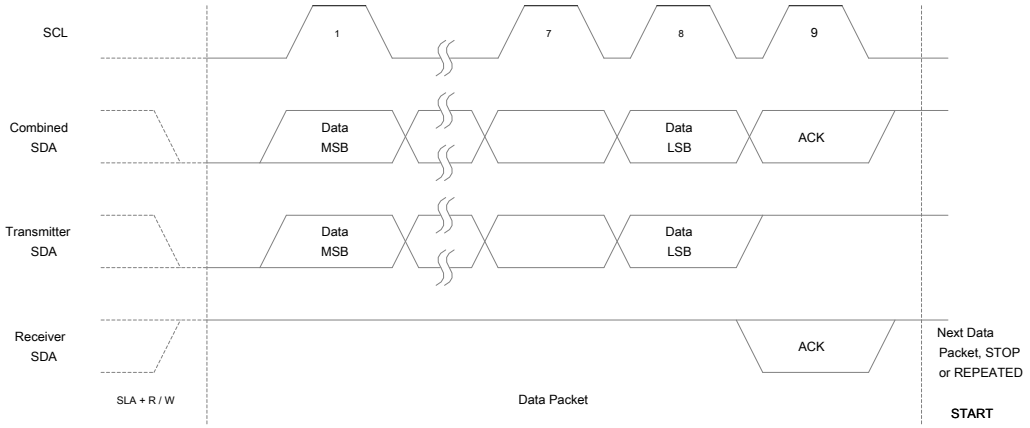


TWI Address Packet Format FIG.

Packet format

all TWI On the bus packets are transmitted 9 Bit data length, from the 1 Data bytes and 1 Bit acknowledgment bit. During data transfer, the master is responsible for generating the transmission clock SCL with START and STOP State, the transmitter transmits the data byte to be transmitted, the receiver generates a reception response. Confirmation signal ACK At the receiver is 9 More SCL (ACK) By pulling cycle SDA Lines generated. If the receiver ACK Keep the cycle SDA Line is high, the signal sent unacknowledged NACK . When the receiver has received the last byte, or for some reason can not receive any data, you should receive the last byte sent by NACK To inform the sender. Data bytes MSB Bit first.

Packet format is shown below:



TWI Packet Format FIG.

Transmitting the combined address and data packets, a transmission consists essentially of 1 More START , 1 More SLA + R / W , 1 Or more