A.3 VLYNQ 2.0 Packet Format

The VLYNQ 2.0 packet format is shown in Figure A-1 and described in Table A-3, where 0<N<65. Multi-byte fields are transferred least-significant byte first.

Figure A-1. Packet Format (10-bit Symbol Representation)

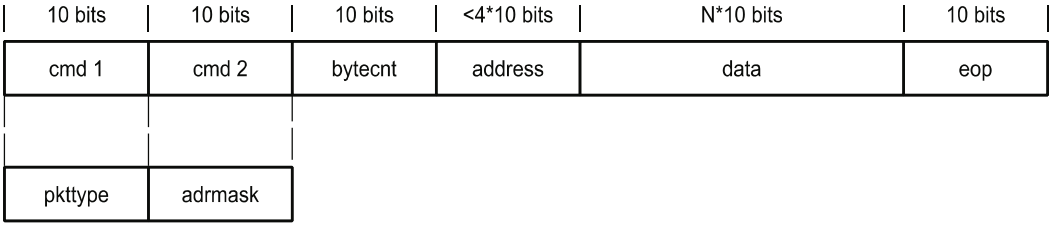

Table A-3. Packet Format (10-bit Symbol Representation) Description

Field	Value	Description
PKTTYPE[3:0]		This field indicates the packet type.
	0000	Reserved
	0001	Write with address increment.
	0010	Reserved
	0011	Write 32-bit word with address increment.
	0100	Reserved
	0101	Configuration write with address increment.
	0110	Reserved
	0111	Interrupt
	1000	Reserved
	1001	Read with address increment.
	1010	Reserved
	1011	Read 32-bit word with address increment.
	1100	Reserved
	1101	Configuration read with address increment.
	1110	Reserved for VLYNQ version 2.0 and later.
	1111	Read response for all VLYNQ versions.
ADRMASK[3:0]		Indicates which byte of the address is included in the packet. Only address bytes that have changed since the previous address will be included. Each bit corresponds to one byte of address.
BYTECNT[7:0]		Byte count. This field indicates the total number of bytes in the packet. This field is only included for write, read, and configuration packet types. All other packet types have fixed lengths and do not require this field.
ADDRESS[7:0]		Address byte 0. This byte is included only if ADRMASK[0] is set to 1. If ADRMASK[0] is cleared to 0, assume this byte is equal to bits 7:0 of the previous address. Read response packets do not include this field.
ADDRESS[15:8]		Address byte 1. This byte is included only if ADRMASK[1] is set to 1. If ADRMASK[1] is cleared to 0, assume this byte is equal to bits 15:8 of the previous address. Read response packets do not include this field.
ADDRESS[23:16]		Address byte 2. This byte is only included if ADRMASK[2] is set to 1. If ADRMASK[2] is cleared to 0, this assume this byte is equal to bits 23:16 of the previous address. Read response packets do not include this field.
ADDRESS[31:24]		Address byte 3. This byte is only included if ADRMASK[3] is set to 1. If ADRMASK[3] is cleared to 0, assume this byte is equal to bits 31:24 of the previous address. Read response packets do not include this field.
DATA		Data payload. The maximum data payload size is limited to sixteen 32-bit words to allow it to fit in the RX FIFO.
EOP		End of packet indicator, /T/.