

NOTE THAT THE RM7000C XYLINX PROM BINARY STRING IS LITTLE ENDIAN: 10000000 01010101 00000001 00000010
 *CPU is fed these boot mode bits as bytes in little endian mode. 7 -> 0 15 -> 8 23 -> 16 32 -> 24



RM7000A™ Microprocessor with On-chip Secondary Cache Data Sheet
 These values ABOVE are in the Xyinx, within the table itself these values are LSB -> MSB Released
 Byte flipped from the above yields: 0 -> 7 8 -> 15 16 -> 23 24 -> 31
 600MHz RM7000C mode bits: 00000001 10101010 10000000 01000000

NOTE: IN ORDER TO OBTAIN BOOT-MODE VALUES WHICH MAKE SENSE FOR THE 600MHZ CPU BYTE FLIPPING IS REQUIRED

Table 16 Boot Time Mode Stream

| Mode bit | Description | Mode bit | Description |
|-------------------|--|-------------------|--|
| 0 0 | reserved (must be zero) | [17:16] 01 | System configuration identifiers - software visible in Config[21:20] |
| [4:1] 0000 | Write-back data rate 0: DDDD 1: DDxDDx 2: DDxxDDxx 3: DxDxDxDx 4: DDxxxDDxxx 5: DDxxxxDDxxxx 6: DxxDxxDxxDxx 7: DDxxxxxxDDxxxxxx 8: DxxxDxxxDxxxDxxx 9-15: reserved | [19:18] 00 | Reserved: Must be zero |
| [7:5] 100 | SysClock to Pclock Multiplier Mode bit 20 = 0 / Mode bit 20 = 1 0: Multiply by 2/x 1: Multiply by 3/x 2: Multiply by 4/x 3: Multiply by 5/2.5 4: Multiply by 6/x 5: Multiply by 7/3.5 6: Multiply by 8/x 7: Multiply by 9/4.5 | 20 0 | Pclock to SysClock multipliers. 0: Integer multipliers (2,3,4,5,6,7,8,9) 1: Half integer multipliers (2.5,3.5,4.5) |
| 8 1 | Specifies byte ordering. Logically ORed with BigEndian input signal. 0: Little endian 1: Big endian | [23:21] 00 | Reserved: Must be zero |
| [10:9] 10 | Non-Block Write Control 00: R4000 compatible non-block writes 01: reserved 10: pipelined non-block writes 11: non-block write re-issue | 24 0 | JTLB Size. 0: 48 dual-entry 1: 64 dual-entry |
| 11 0 | Timer Interrupt Enable/Disable 0: Internal Timer Interrupt gated to IP7 1: External INT5* gated to IP7 | 25 1 | On-chip secondary cache control. 0: Disable 1: Enable |
| 12 1 | Enable the external tertiary cache 0: Disable 1: Enable | 26 0 | Enable two outstanding reads with out-of-order return 0: Disable 1: Enable |

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| Mode bit | Description | Mode bit | Description |
|--------------------------|--|--------------------------|------------------------|
| [14:13] 10 | Output driver strength - 100% = fastest 00: 67% strength 01: 50% strength 10: 100% strength 11: 83% strength | [255:27] 0 | Reserved: Must be zero |
| 15 0 | External Tertiary cache RAM type: 0: Dual-cycle deselect (DCD) 1: Single-cycle deselect (SCD) | | |

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