Am79C830A

Formac Plus

DISTINCTIVE CHARACTERISTICS

- Am79C830 with enhanced features

- Supports Void Frame Stripping in on-line special mode

  When programmed to operate in the "on-line special" mode, the FORMAC Plus will issue two auto void frames prior to releasing the token. With the internal counter, the void and counter stripping algorithm can be implemented as described in both the bridge networking group documents of ANSI X3T9.5 and the IEEE 802.1D standard.

- MAC Status Copying (MSC) Handling of A & C indicators

  When the FORMAC Plus is programmed to operate in the "on-line special" mode, the A & C indicators will be set in accordance with the bridge type described as "MAC Status Copying" (MSC) when the external destination address match signal (XDAMAT) is activated. The A & C indicators will be handled normally for addresses recognized through the internal FORMAC Plus registers.

- SRCOMP bit functional in Tag Mode

  The SRCOMP bit in status register two upper will be valid in tag mode. The SRCOMP bit indicates that the status word has been written to the buffer memory following the reception of a frame. In Am79C830, this bit is meaningful only in non-tag mode. The SRCOMP bit will now also indicate when the status word is written into the buffer memory in tag mode as well as non-tag mode.

- Timer for detection of duplicate MAC addresses

  When the ring is not operational, during claim or beacon states, the TSYNC timer is utilized to time transitions RM34a and RM34b of the Ring Management (RMT) state machine. The timer is initialized with a value of twice Dmax (3.546 ms). It begins to count as the MAC transmit state machine takes transitions T45 (claim state to beacon state) or T54 (beacon state to claim state). It is reinitialized at the transition between claim and beacon states. If the timer expires while the MAC is still in T4 or T5 and MY_CLAIM or MY_BEACON is received, the existence of a duplicate MAC address on the ring is detected. This will be indicated by setting SDUPCLM (bit 2) in status register 2 lower.

GENERAL DESCRIPTION

The Am79C830A is an enhanced version of the current Am79C830. The enhancement incorporates new functions to support transparent bridging in addition to other new features. This an identical device to Am79C830 with respect to pin-outs and dimensions. Contact your local AMD sales office for more information.