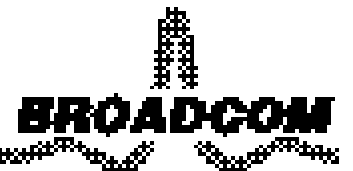# Position Statement on Modulation and Coding for Gigabit Ethernet

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Position Statement

- **Broadcom has a desire to work towards consensus within 802.3ab and agree on a standard in the shortest time possible**

- **We see no fundamental issues with either passband or baseband schemes that would preclude a cost effective solution**

- **We prefer passband over baseband due to its lower baud rate, lower SNR requirement, and other reasons stated in previous presentations**

- **However, discussions and informal vote in Maui clearly indicate a preference for a baseband scheme among the members of this task force**

- **While the 24D lattice code was the best choice for a passband modulation scheme, 4D time-independent trellis is a better match for a baseband scheme, particularly when used in combination with Decision-Feedback Sequence Estimation (DFSE)**

- ***In order to accelerate the standards effort, Broadcom will support a 5-level PAM modulation scheme as well as the 4D time-independent trellis code that was discussed at the Maui meeting.***

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