In this paper, we present a performance evaluation of three codes; enhanced double weight (EDW), random diagonal (RD) and zero cross correlation (ZCC) for 10 Gb/s x 4 user, 20 km standard SMF transmission link for OCDMA PON. These SAC codes have ideal in-phase cross-correlation properties to reduce the MAI effects in OCDMA. The performance has been characterized through received optical power (ROP) sensitivity and dispersion tolerance assessments. The numerical results show that the ZCC code has a slightly better performance compared to the other two codes for the ROP and similar behavior against the dispersion tolerance. In the analysis we also consider the character of the code properties and the flexibility as criteria for OCDMA PON network instead of the performance.