The PAL equations for Collision Detection in HUB are:

\[
CDT = !(EA \lor !EB \lor !EC \lor !ED \lor !EE \lor EF) \\
    !(EA \lor EB \lor EC \lor ED \lor EE \lor EF) \\
    !(EA \lor !EB \lor EC \lor ED \lor EE \lor EF) \\
    !(EA \lor !EB \lor !EC \lor ED \lor EE \lor EF) \\
    !(EA \lor !EB \lor !EC \lor !ED \lor EE \lor EF) \\
    !(EA \lor !EB \lor !EC \lor !ED \lor !EE \lor EF) \\
    !(EA \lor !EB \lor !EC \lor !ED \lor !EE \lor !EF)
\]
The CDT signal is HIGH only when there are two or more active channels.

COLLISION DETECTION SR-FF :
COLLEN = ! ( CDT # COLLEN )

COLLEN = ! ( !RESET # COLLEN # !CDT & !EA & !EB & !EC & !ED & !EE & EF )

The COLLEN signal is set with collision and reset when all the channels go inactive.

RCVDAT = ( (RA # !EA) & (RB # !EB) & (RC # !EC) & (RD # !ED) & (RE # !EE) & (RF # EF) )

The RCVDAT signal is the received data signal.