Data => 1001 => 46its => M=4 1 # Find Number of parity Bits required. Formula => 2 > m+p+1, p=) No. of Parity Bits 274+2+1 2374+3+1 x(47,7) [878] [50, p=73] Total Code Bits = 4+3 2# P2 Pi Bit Designation M, P3 M3 M2 My Bit Position 2 5 Binary Position 011 100 101 111 010 110 601 Information Bi5 Parity Bits 3# Parity Bits are located in the position that are numbered (2,2,2,2,23,24) =) 1,2,4,8,16 P,=> checks bit Position 1, 3,57, and must be 0, in order to have an even number of 113. VI 11 (1, =) Even. No. of Isare there P2=> Checks Bit Position P3=) 4567 fr 1/4 /1/1/ 2,367 孙林孙林 P3 0 0 1 \$0 final Data 00110017

[P2=0]

Data => 1001 => 46its => M=4 1 # Find Number of parity Bits required. Formula => 2>m+p+1, p=> No. of Parity Bits det p=2 det p=3 det p=3 det p=3 det p=3 det p=3x[47,7] [8 / 8] [Fo, p=73] Total Code Bits = 4+3 1/2 M, Pi P3 Bit Designation M2 My Bit Pasition 5 2 Binary Position 011 010 101 100 111 601 110 Information Bit Parity Bits 3# Parity Bits are located in the position that are numbered 3# corresponding to ascending power of two (2,2,2,2,23,24) E) 1,2,4,8,16 P,=> checks bit Position 1, 3,57, and must be 0, in order to have an even number of 113. VI 1, 1, 1, = Fren. No. of Isare the P2=> Checks Bit Position P3= 4567 4 44 44 44 2,367 孙林林 P3 0 0 1 | P3 = 1) Sofinal Data 00110017 [P2=0]

## Receiver, Receive the Dala = ) 0010001 Actual Data = ) 0011001 #DETECTION and CORRECTION of ERROR

TILDOLLA LIA							
Bit Designation	Pi	P2	MI	P3	/M2	M3	1 M4
Bit Position		2	3	4	5	6	7
Binary Position	001	010	011	100	101	110	111
Received code	0	0	1	0	0	0/	

# First Parity check =) 1357

| 101

O All neady even, so parity bit
Should be o, and its o.

Parity =) Good => O(LSB)

# Second Parity Check = ) 2367 1/101 and => 0

# Third Parity check => 4567

11/001 should be, I formaking

even parity

So Parity is Bad => 1 (MSB)

Error Position Code=) 100 Binary=4

It shows bit in number 4 position is in Error It is 90, should be 1. Cornect code is =) 0011001