

## GACOMP2 protocol V1.32

This protocol is defined for a POCSAG encoder with RS-232 in baud rate ( 9600 ,N,8,1 ) of PC .

PC send to Transmitter
Transmitter command format ( All contents is visible ASCII code exclude the STX and EOT) =
STX + Capcode content + Message content + CheckSum + EOT
= 02H + AAAAAAERF + Message content + CCCC + 04H
Format Description :
Contents are all visible ASCII code value >= 20 Hex except the STX and EOT command
STX is 02 Hex code , it is not visible in ASCII code
EOT is 04 Hex code , it is not visible in ASCII code
Capcode content = AAAAAAERF
(a) AAAAAA is a 7 digits numeric between 0000008 - 2097151 representing a pager or RCM receiver capcode
(b) E is 0,n,or N represent numeric encoding, and 1,a,or A represent alphanumeric encoding
(c) R is RF data rate, where 5 represents 512 bps, 1 represents 1200 bps, and 2 represents 2400 bps
(d) F is 0,1,2,3,or 4 defines the function code to be delivered.
It is 0 represent the default value for F is 4 when the E value is alphanumeric, and 1 when the E value is numeric
Numeric message = 0 to F Hex that transfer to visible ASCII code is 30H to 39H (0 – 9) and 41H to 45H (A – F).
Message content = any message you want send out ,if you did not carry any message then it will send out a "Tone Only" message output

Checksum(CCCC) is a 4 number of ASCII code include all contents before CheckSum ( STX + Capcode content + Message content )			
Checksum example :	Capcode content	Message content	Checksum
EX 1. Num.1200bps	<b>1000001N11</b>	1234ABCD	03D8
Description :	Checksum = 3D8H (02H+31H+30H+30H+30H+30H+30H+31H+4EH+31H+31H+31H+32H+33H+34H+41H+42H+43H+44H)		CCCC = 03D8 (30H,33H,44H,38H)
Total contents = 02H + "1000001N111234ABCD03D8" + 04H			
EX 2. Alpha 1200bps	<b>0000128A11</b>	abcdefghijkl	0662
Description :	Checksum = 662H (02H+30H+30H+30H+30H+31H+32H+38H+41H+31H+31H+61H+62H+63H+64H+65H+66H+67H+68H+69H+6AH+6BH)		CCCC = 0662 (30H,36H,36H,32H)
Total contents = 02H + "0000128A11abcdefghijkl0662" + 04H			
EX3. Num. 512 bps	<b>1000122N51</b>	xxx...	6A3C
Description :	Checksum = 126A3CH ( only use last 4 digits as valid )		CCCC = 6A3C (36H,41H,33H,43H)

### Transmitter send to PC

If command accept to transmitter then transmitter send CCCC + **ACK(06H)** to PC . the CCCC is check sum of message.  
 if command did not accept to transmitter will not send back CCCC + **ACK(06H)** within 200 mS .

**Note: Transmitter encode message must be following two conditions then transmitter will encode all messages and send all messages at one time.**

- 1. PC send message then receive the ACK from transmitter and PC send first byte of next message less than 150mS after last ACK.**
- 2. Transmitter received total messages is less then 15K bytes.**

**Idle Capcode is from 2007664 to 2007671.**