publisher - PUB ③

broker - PUB ③
         - PUBACK ④   - CONN ①
         - SUBACK ⑥   - FINACK ⑨
         ~ CONNACK ②
         - PING ACK ⑧

subscriber - SUB ⑤
             - PUBACK
             - PING ⑦

⑨ Packet

1 CONN   7 PING
2 CONNACK   8 PING ACK
              9 FINACK
3 PUB
4 PUBACK
5 SUB
6 SUBACK

Fixed Header

byte 1   4 bit usれนิดu type
         4 bit 2 เจน flag

byte 2,3   remaining length

Variable Header

① conn

  header   protocal name
           protocal version   byte 4

  byte 1   protocal name length
  byte 2-n protocal name
  byte n+1 protocal version

② CONNACK
  header   Is error

  byte 1   return code

③ PUB
  header   topic name | payload message
           message id |

  byte 1 topic length
  byte 2-n topic name
  byte n+1 →n+2 message id

④ PUPACK
   header   message id
   byte 1-2   message id

⑤ SUB
   header topic name
   byte 1 topic length
   byte 2-n topic name

⑥ SUBACK
   header   message id
   byte 1-2   message id

⑦ PING

⑧ PINGACK

⑨ FINACK

Fixed			Variable	Payload
1	2	3	4 — n	n + + + +