

Outgoing bits
11 00 01

IF signal $a \exp[j(2\pi f_{IF}t + \phi)]$



IF carrier
 $\exp(2\pi j f_{IF} t)$

Higher layer protocols

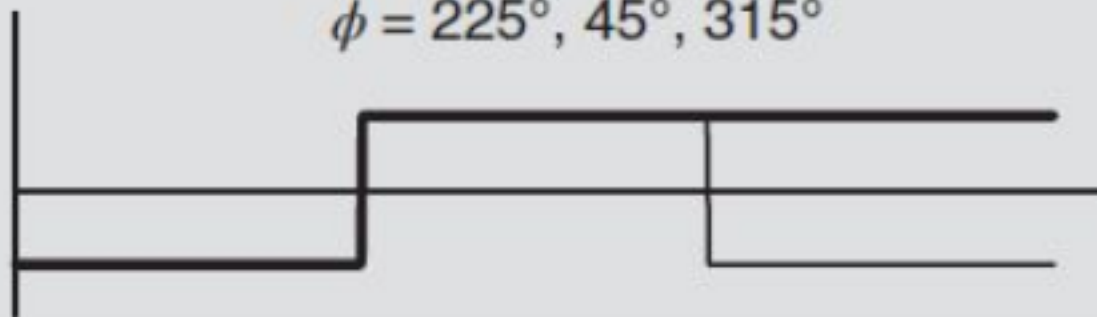
Bits to symbols

DAC

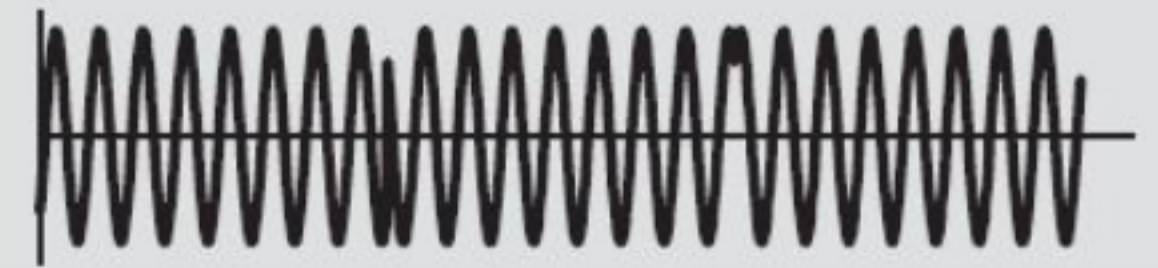
Select in phase component

RF carrier
 $\exp(2\pi j f_{RF} t)$

Outgoing symbols $a \exp(j\phi)$
 $\phi = 225^\circ, 45^\circ, 315^\circ$



RF signal $a \cos[2\pi(f_{IF} + f_{RF})t + \phi]$



— In-phase component
— Quadrature component

