Re(x) = (x + x\*)/2

F(x) = A\*exp(j \* [a\*Re(x) + b\*Im(x)])

G(x) = B\*exp(j \* [c\*Re(x) + d\*Im(x)])

F\*G = AB\*exp(j \* [(a+c)\*Re(x) + (b+d)\*Im(x)])