ABSTRACT

Nowadays technology of communication had going places quickly. The human needs of sophisticated telecommunication, quick and trade on become a need that can not negotiable again. Either one of communication technology that many developed is video digital transmission technology. Video is transmitted by network must in digital format. Although it is be very likely to do by only convert image analog to image digital by an Analogue Digital Converter, but as time passes it is not enable to do because the bigness bit rate that needed. For this reason compression technique is much needed.

Video Coding standard H.264 / AVC is video coding that declared by ITU-T *Video* Coding Experts Group (VCEG) and ISO/IEC Moving Picture Experts Group (MPEG) collaboration with Joint Video Team (JVT). The main purpose of this standard is to increase compression efficiency and to give flexibility implemented at all applications. Video coding standard H.264 is have three profiles that is baseline profile, main profile and extended profile. At this graduating paper the using profiles is baseline profiles.

At graduating paper that have topic Simulation of Transporting H.264 / AVC over 3G UMTS Network, channel condition that is used at UMTS-WCDMA network set based on standard 3GPP namely case 3 (120 km/hour), case 4 (3 km/hour), and case 5 (50 km/hour). From simulation is gotten that for both of video, the channel that first achieve BER target 10^{-5} is case 5, then case 4 and case 3. The Eb/No value that is needed by akiyo video to achieve BER 10^{-5} is 0,425 with average PSNR Y is 39,97 dB, while for foreman video is 0,435 with average PSNR Y is 28,97 dB.

Generally video encoded H.264 transmitted by 3G UMTS have objective value acceptable because video that decoded have average PSNR Y > 20 dB. And with subjective value, video encoded at 3 cases have fair quality with low damage level.

Keywords : H.264, WCDMA, channel condition, PSNR, MOS