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Considerations for Coexistence: DVB-T2 Broadcasting and LTE Basestations in  
700/800 MHz bands in South Africa

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**ABSTRACT:**

This work considers coexistence of DVB-T2 and LTE in South Africa. The protection ratios for protecting DVB T2 transmission against interference from LTE are calculated based to the DVB-T2 specifications used in South Africa. An approach is proposed and model developed to apply the protection ratios to evaluate the appropriate separation distances, as a function to frequency and power separation, ignoring the possibility of overload and desensitisation. One of key findings is that an easy way of coexistence is by placing the LTE base stations on the same towers as the broadcasting DVB-T2 transmitters.