

## Crossing Control with DTMF SCADA Receiver

In actively protected rail level crossings sometimes the signal operation needs to be manually operated, where localised radio-based control can provide a cost effective solution.

The STI Engineering SCADA receiver is easy to implement as it works using existing UHF voice radio hardware. There is no need to buy or install additional transmitters to operate the SCADA receiver.

STI Engineering radio SCADA receivers have been used when upgrading many level crossing locations in a large rail network in Australia.

The radio communication is a low cost method of activating a manual trackside switch without exiting the locomotive. The system utilises existing voice analog radios so no additional radio equipment or licenses are required.

Each level crossing to be activated has a DTMF SCADA receiver installed in the signaling control cabinets and is allocated a specific code. As a driver needs to activate the crossing a code is keyed on a standard DTMF voice radio within the locomotive, which transmits the code over the voice frequency channel. When the wayside station receives and decodes the tones a set of dual relays is activated for use by the signaling equipment.

The STI Engineering DTMF SCADA receiver provides for security against rogue signals with a dedicated licensed receive channel and configurable parameters such as RSSI trigger levels, tone gap and tone length times plus a strict sequence checking option. Additional security against rouge activation can be achieved by checking the receiver activation against track occupation.

When installed the SCADA receiver provides a means to reduce the time and effort in manual activation of crossings and reduces the risk associated with a driver exiting the locomotive.



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