Why use an Active antenna ?

Why use an Active Antenna ?

The difference between a passive and an active satellite antenna is:

Active antenna

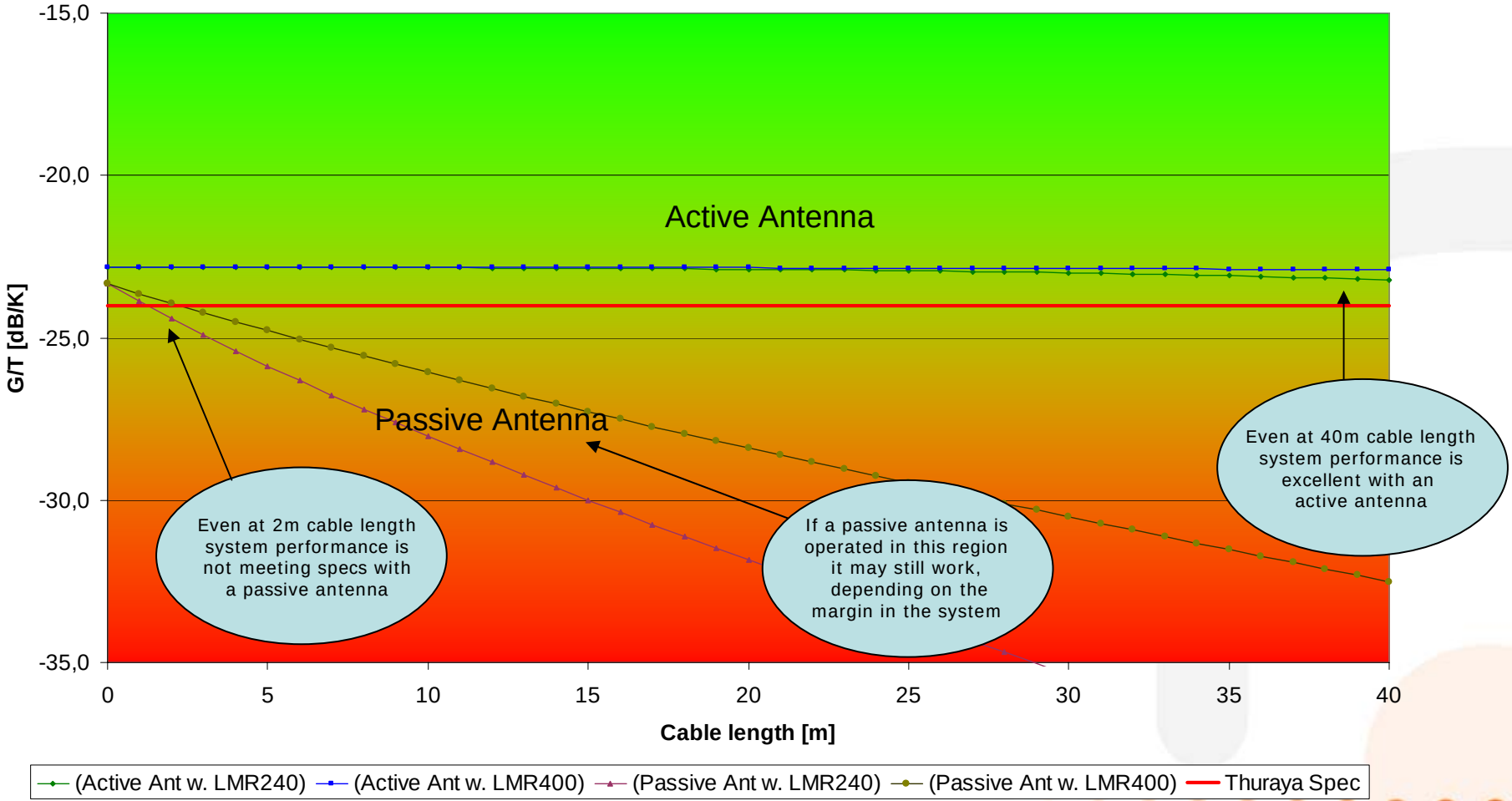
Includes two amplifiers, one for the downlink an one for the uplink.
The amplifiers are located very close to the antenna.
The purpose of the downlink amplifier is to maintain the best possible signal quality at reception. The purpose of the uplink amplifier is to deliver the needed RF power into the antenna.
Without these amplifiers, the loss of the coaxial cable will have a severe impact on performance. **With an active antenna, it is possible to use long cables and still maintain performance**.

Passive antenna

Includes only an antenna element, no amplifiers. A passive antenna is useful only for short runs of coaxial cable. **Cable loss will deteriorate system performance**.

Why use an Active Antenna ?

Signal Quality (G/T) for Passive and Active Antennas vs cable length



Why use an Active Antenna ?

Conclusion:

An active antenna is the only choice for long cables

SCAN Antenna recommendation:

Cable	Passive ant.	Active ant.
LMR240	Less than 3m	Less than 20m
LMR400	Less than 6m	Less than 40m