



More about standard definition (SD) and high definition (HD)

High definition (HD) broadcasts are available in Australia on free-to-view digital television and provide the highest picture quality available via broadcast today.

For the viewer, this means crystal clear pictures—with up to three times the horizontal and up to twice the vertical resolution of a standard digital television broadcast (known as standard definition). This allows broadcasters to provide amazingly detailed, lifelike images that can approach film quality—with clear, sharp edges, realistic colours and greater depth of vision.

To receive and watch free to view high definition television you either need a television or display panel with an in-built High Definition digital television reception capability (a High Definition digital tuner) or a High Definition set top box connected to a High Definition capable television or display panel.

The following table provides a summary of the differences between Standard Definition and High Definition digital television broadcasts in Australia.

 Standard definition digital	 High definition digital
Mainly widescreen (16:9) programming, although some older, archival and overseas programs are shown in 4:3 format.	All programming is produced in a widescreen (16:9) format picture.
Improved picture resolution—similar in quality to that provided by standard DVD players	Highest available picture quality—up to three times the horizontal and twice the vertical resolution of SD broadcasts (when viewed on HD-capable sets)
MPEG digital stereo sound—similar to CD quality	
Some programs are enhanced with Dolby Pro Logic surround or Dolby Digital sound	Some broadcasters provide programming enhanced with Dolby 5.1 surround sound (where this is available)
Additional channels and multi-camera views	HD programs may be simulcast in SD

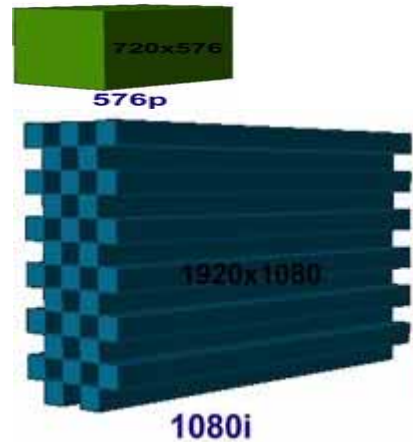
SD picture format:



576i (576 horizontal lines interlaced):

- supported by all broadcasters
- data rate is 5–7 Mbps
- 576 horizontal lines interlaced x 720 active pixels
- vertical frequency is 50Hz interlaced

HD picture formats:



576p (576 horizontal lines progressive):

- transmitted by SBS:
- data rate is 10–13 Mbps
- 576 horizontal lines progressive x 720 active pixels
- vertical frequency is 50Hz progressive

720p (720 horizontal lines progressive):

- transmitted by ABC
- data rate is 10–13 Mbps
- 720 horizontal lines progressive x 1280 active pixels
- vertical frequency is 50Hz progressive

1080i (1080 horizontal lines interlaced):

- transmitted by Seven, Nine, Ten, WIN, Prime, Seven Qld, NBN, Southern Cross/Ten, Tas Digital
- data rate is 13–15 Mbps
- 1080 horizontal lines interlaced x 1440 active pixels broadcast by all except Ten and Nine Perth
- 1080 horizontal lines interlaced x 1920 active pixels broadcast by Ten and Nine Perth
- vertical frequency is 50Hz interlaced

Most late model analog televisions and display panels are capable of displaying 576i pictures when attached to either a SD or HD set top box

An integrated SD digital television cannot display HD programs

HD monitors and display panels, when connected correctly to HD set top boxes, are capable of displaying HD programming at the highest quality

An integrated HD digital television is capable of displaying HD programs at the highest quality