

Progressive Scan Output

If your customer has (or is planning to buy) a digital TV, a DVD player that includes a Progressive Scan output is a great addition that will provide the best possible performance when playing a DVD. But why is that true?

To generate a picture, a TV quickly draws a series of horizontal lines across the screen, creating patterns of light on the surface. This process is known as scanning, and each line that's drawn across the screen is called a "scan line", and 480 scan lines are used to create a picture on the TV screen.

Analog TVs create this picture by running two alternating passes across the screen, starting at the top and drawing half of the lines in the first pass (odd numbered lines 1-479), and the other half in the second pass (even numbered lines 2-480). Each pass is accomplished every 1/60th of a second, so the entire picture is seen once every 1/30th of a second. Since the two passes are interlaced to form the complete picture, this is known as an "interlaced scan".

With a Digital TV, these scan lines can be drawn twice as fast, so a complete scan of all 480 lines – from top (1) to bottom (480) can be drawn on the screen in the same 1/60th of a second that an interlaced display would take to draw only half of the lines.

So, why should your customer care? And what does this have to do with a DVD player?

Well, if the TV is digital, and is therefore capable of handling a progressive scan video signal, the end product is a visibly fuller, sharper picture, with virtually none of the striping that would normally be visible on a conventional TV. The picture is also noticeably brighter, since twice as much screen area is illuminated by the electron beam in the same period of time.

This is especially important with larger screen sizes. The progressive scan picture really holds together in that case, where the shortcomings of an interlaced scanning system become more obvious. But, in order to view a progressive scan picture on the TV, you need a progressive scan source – like all current Sony DVD players.

That's why Progressive Scan output is such an important feature on a DVD player.

This article was written as part of an online training module, and also distributed separately to the internal sales and training teams.

The article was produced entirely by Gary Schilling, including:

- *Research*
- *Copywriting*
- *Images*

INTERLACED SCAN



1. Odd numbered scan lines (1-479)

2. Even numbered scan lines (2-480)

PROGRESSIVE SCAN



1. All scan lines (1-480)

2. All scan lines (1-480)