

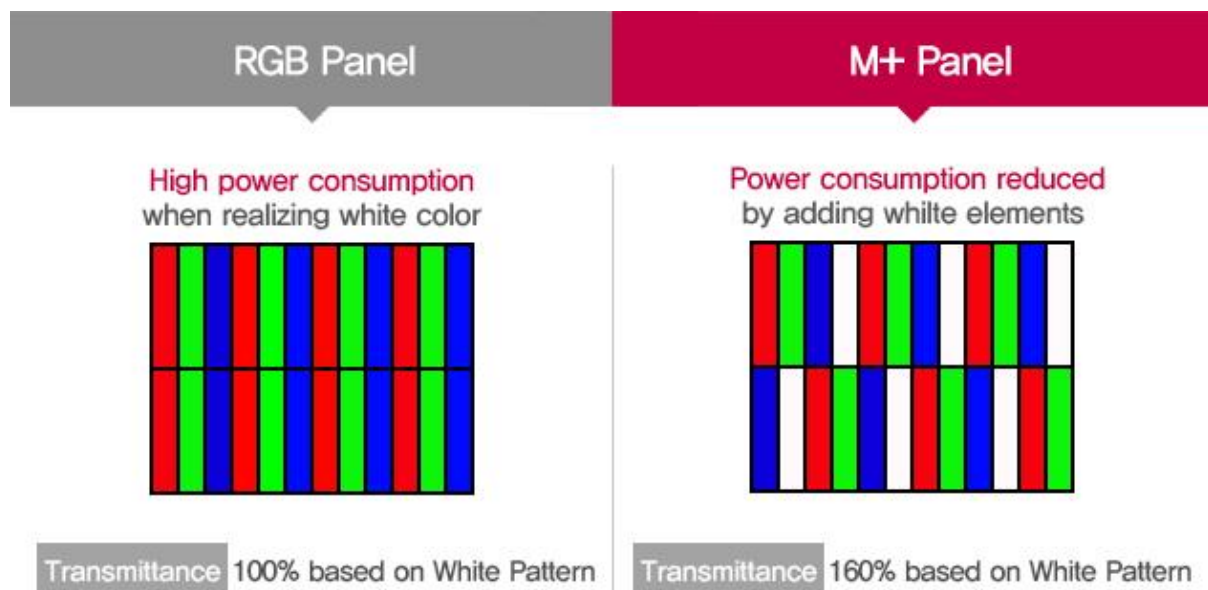


## LG Display Addresses Environmental Issues with M+

It is no news that climate change and energy source depletion have become a major issue around the globe. In order to address the issue, LG Display is also exerting its effort to save energy and protect the environment through research and development of energy efficient technologies and products – M+ technology, applied to UHD TV panels, is one of the examples. Below you will find the detailed explanation of the mechanism and effect of M+ technology.

### Enhanced Resolution and Reduced Power Consumption, Rolled into one!

M+ is green technology that realizes low power consumption by adding a white element to the existing pixel structure of RGB (red, green and blue). What does this mean? In order to create white color on the screen, the existing RGB method consumed relatively large amount of energy, as the three primary colors of light - red, green and blue – all had to be combined. We successfully overcame this issue by adding the white element, which employs a transparent filter that passes light through entirely.



With the adoption of M+ technology, light transmittance is enhanced by 60% compared to the RGB panels, resulting in an even brighter screen. Once LG Display's unique 'Pure Color Recovery Algorithm' is added, a M+ panel can achieve the same level of resolution as an RGB panel even with reduced power consumption.

### **The Same Level of Resolution as General RGB Panels with Reduced Power Consumption**

While consuming significantly less amount of electricity than RGB panels, the level of resolution is so similar to general RGB panels, that the difference is indistinguishable to the naked eye. Based on the measurement taken using the standard video content for power consumption measurement, M+ panel can save approximately 30% of electricity use. While the efficacy of M+ varies with the image displayed, it is especially effective for those images with more neutral colors. M+ technology especially shines on the high brightness mode screen. Let's take a look at the comparison below.



As you can see, M+ screen is noticeably brighter than the general RGB screen with the same amount of power consumption. The superior quality of the resolution was officially confirmed with Vesa resolution certification issued by the fourth research institute of China and the leading certification institute, Intertek. M+ panel was also displayed side-by-side with the existing RGB panel and received positive feedback during the world's largest consumer electronics exhibition, CES 2014, held in Las Vegas in January.

---

LG Display is planning to expand the UHD market with M+ products in the center. Starting mass production of 55/49/42 inch UHD models in March, LG Display plans to expand the lineup to 65-inch by October this year. The application of LG Display's green technology M+ to mass production is great news considering the growing importance of low power technology in today's world. Please give M+ your undivided support so that it can further evolve to be applied to other product lines than TVs!