

SCREEN

Although Dainippon Screen had always used external drum engineering as the imaging technology for their drum imagesetters, they were not an early entrant to the external drum CTP market. They were, however, perfectly positioned to become a major player once Creo and Scitex experienced success with the external drum approach to CTP.

Screen produces two basic platesetter designs. By far the most popular is their external drum thermal PlateRite (PT-R) platesetter, which is available in 4-up, 6-up, 8-up, and VLF models. These machines are sold by Screen under the PlateRite brand, and are also offered under OEM agreements by Agfa, Fuji, and, until 2003, Heidelberg.

Screen also produces a flatbed platesetter with a visible light laser. This model was introduced in 1997 as the PF-R 1050 or Flat-Rite 1055, and had a 633 visible red laser diode. There was virtually no acceptance of this model in the U.S. market. Starting in 2001, Screen began producing a violet variation of this model with a 5 mW diode, the PT-R 2055Vi. This model was sold by Agfa as the Palladio. However, to our knowledge Screen did not offer this machine under their own brand name until 2004, when it introduced a 60 mW version of this device. In late 2003, Screen also introduced a 5 mW violet 2-up flatbed, the PlateRite Micra. The violet flatbed has proved far more successful than the original red laser model. Recent identification codes for this product appear to have been changed from PT-R to FT-R.

At Drupa 2008, Screen introduced an extension of its Ultima VLF platesetter offerings to include the Ultima 40000, with a plate size of 89.7 x 62.9" (2280 mm x 1600 mm) and the Ultima 48000, with a plate size of 114.1 x 53.1" (2900 mm x 1350 mm). These models are represented as 80 & 96 page formats respectively. The Ultima 40000 appears to be a replacement of the Ultima 32000, which was discontinued in 2006. The Ultima 48000 appears to be a precursor of things to come in the printing industry, as we will discuss in the conclusion of this paper.

The following list of the PT-R external drum platesetters with 830 nm diode technology specifies the number of laser diodes found in each model. The 4000 model series are 4-up, 6000 series are 6-up, 8000 series are 8-up, and the Ultima Series are VLF devices.

Note:

E = Entry level model with half the diodes of the standard model. These can be upgraded to the full number of diodes of the standard machine.

S = Fully populated, standard machine.

Z = Fully populated machine, with additional resolution of 4000 dpi

External Drum Models

Model	Year	Max. & Min. Size		Number of Diodes
Diode Array / 1 watt diode:				
PT-R 8000	9/1998	45.6 x 37.0	25.6 x 21.7	32
PT-R 4000	9/1999	32.7 x 25.4	15.5 x 12.8	32
PT-R 8000II	2/2001	45.6 x 37.0	19.6 x 14.5	32
PT-R 4000II	8/2001	32.7 x 25.4	15.5 x 12.8	32
PT-R 4300	3/2002	32.7 x 26.0	14.5 x 12.8	32
PT-R 4100	5/2002	32.7 x 26.0	14.5 x 12.8	16
PT-R 8000II	2/2003	45.6 x 37.0	17.7 x 14.5	32
PT-R 8100	4/2003	45.6 x 37.0	17.7 x 14.5	16
PT-R 4300E	3/2006	32.7 x 26.0	14.5 x 12.8	16
PT-R 4300S	3/2006	32.7 x 26.0	14.5 x 12.8	32
PT-R 8300E	6/2006	45.6 x 37.0	17.7 x 14.6	16
PT-R 8300S	6/2006	45.6 x 37.0	17.7 x 14.6	32

Fiber Coupled Diode Array / 1/2 watt diode:			Max. & Min. Plate Size		Laser Diodes
PT-R 8600	2/2001		45.6 x 37.0	19.6 x 14.5	64
PT-R 8600 (opt.2000/4000dpi)	7/2003		45.6 x 37.0	17.7 x 14.5	64
PT-R 8600Z	8/2006		45.6 x 37.0	17.8 x 14.6	64
PT-R 6600S	8/2006		38.5 x 26.9	14.6 x 12	64
PT-R 6600E	8/2006		38.5 x 26.9	14.6 x 12	32
PT-R 8600E	10/2006		45.6 x 37.0	17.8 x 14.6	32
PT-R 8600S	10/2006		45.6 x 37.0	17.8 x 14.6	64
PT-R Niagra	3/2007		41.7 x 31.6	17.8 x 14.6	84

GLV Technology: Thermal 830 nm:

Single 512 Channel Laser Module

PT-R Ultima	4/2003		93.7 x 50.2	25.6 x 21.6
PT-R 8800	9/2003		45.7 x 37.0	17.8 x 14.5
PT-R Ultima 16000	6/2004		57.9 x 45.9	25.6 x 21.7
PT-R Ultima 32000	9/2004		93.7 x 50.2	25.6 x 21.7
PT-R 8800II	8/2005		45.7 x 37	17.8 x 14.6
PT-R 8800II /HS option	8/2005		45.7 x 37	17.8 x 14.6
PT-R Ultima 24000	8/2005		68.9 x 55.1	25.6 x 21.7
PT-R Ultima 16000S	3/2006		57.9 x 45.9	25.6 x 21.7
PT-R Ultima 24000S/Z	3/2006		68.9 x 55.1	25.6 x 21.7
PT-R Ultima 36000S/Z	3/2006		82.6 x 62.9	25.6 x 21.7
PT-R 8800E	2/2007		45.6 x 37	17.8 x 14.6
PT-R 8800S	2/2007		45.6 x 37	17.8 x 14.6
PT-R Ultima 16000IIE/S/Z	3/2007		57.9 x 45.9	25.6 x 21.7
PT-R Ultima 40000S	5/2008		89.7 x 63	25.6 x 21.7
PT-R Ultima 48000S	5/2008		114.1 x 53.1	25.6 x 21.7

Dual 512 Channel Laser Module

PT-R Ultima 32000Z	9/2004		83.6 x 50.2	25.6 x 21.7
PT-R 8800Z dual head	2/2007		45.6 x 37	17.8 x 14.6
PT-R Ultima 24000Z	5/2008		68.9 x 55.1	25.6 x 21.7
PT-R Ultima 36000Z	5/2008		82.6 x 62.9	25.6 x 21.7

Single 1024 Channel Laser Module

PT-R 8800ZX	8/2007		45.6 x 37	17.8 x 14.6
PT-R Ultima 24000SX	5/2008		68.9 x 55.1	25.6 x 21.7
PT-R Ultima 36000SX	5/2008		82.6 x 62.9	25.6 x 21.7
PT-R Ultima 40000SX	5/2008		89.7 x 63	25.6 x 21.7
PT-R Ultima 48000SX	5/2008		114.1 x 53.1	25.6 x 21.7

Dual 1024 Channel Laser Module

PT-R Ultima 24000ZX	5/2008		45.6 x 37	17.8 x 14.6
PT-R Ultima 36000ZX	5/2008		82.6 x 62.9	25.6 x 21.7

Flatbed Models:

Model	Year	Size	Laser	Comments
PF-R 1050	5/1997	4-up	red 633 nm	Never had market acceptance, discontinued in 2002
PT-R 2055Vi	9/2001	4-up	violet 410 nm 5 mW	Re-engineered PT-R 1050, sold under the Agfa Palladio name. Originally had a 5 mW laser, later offered with a 30 mW laser as the Palladio 30 and Palladio II
PT-R Micra	9/2003	2-up	violet 410 nm 5 mW	5 mW standard, 60 mW diode available as an option
PT-R 2055Vi	9/2004	4-up	violet 410 nm 60 mW	60 mW standard
FT-R 2055VR	3/2007	4-up	violet 410 nm 60 mW	Appears identical to the Vi, just rebadged
FT-R 2055VIII	2008	4-up	violet 410 nm	We currently have no additional information on this product

See pages 37 and 42 for productivity specs.