November 16, 2007

PRESS INFORMATION

The Japan Recording-Media Industries Association

Demand for Recordable DVDs Gains Momentum to Surpass Recordable CDs

― Next 3 Years Forecasts for Global Recording Media Demand and Production ―

Tokyo, Japan, November 16, 2007―The Japan Recording-Media Industries Association, chaired by Yoshito Tsunoda, announced its forecast for global demand and production of recording media products based on its estimates for 2007. The product categories addressed in this survey are optical disks, magneto-optical (MO) disks, magnetic tapes, floppy disks, and compact memory cards. Forecasts are for the next three years through 2010. The survey also includes forecasts of global demand for compact memory cards for the first time. Global production volumes of 3.5-inch MO disks is declining and production is limited to just a small number of Japanese manufacturers, and consequently forecasts concerning global production have been omitted.

Optical and Magneto-Optical Disks

・CD-R/RW Disks

Global demand for Data CD-Rs ― Global demand for data CD-Rs in 2008 will fall 7% from 2007 to 6,328 million units and a further 8% in 2010 from 2009 to 5,292 million units, continuing the decline since peaking in 2005. Demand is shifting to write-once DVDs as applications expand and the need for higher capacities such as photo and video storage increases. Demand for data CD-Rs was the largest segment within the optical disk category and was a significant driving force in the industry, but the demand for write-once DVDs is expected to exceed that for write-once CD-Rs in 2009.

Global demand for Audio CD-Rs ― Global demand for audio CD-Rs in 2008 will fall 6% from 2007 to 248 million units and will decrease a further 7% to 215 million units in 2010, declining continuously since peaking in 2004. Portable digital audio devices that use HDDs and the expansion of music downloading via the Internet are having a significant impact on demand on a global scale. Nonetheless, domestic demand has increased slightly contrary to forecasts and the increase in demand is continuing. Audio CD-Rs are valued for their designs, and demand for music data backup and music listening in cars remains strong.

Global production of CD-Rs — Global production of CD-Rs is forecast to decline by 7% in 2008 from 2007 to 7,240 million units and by 9% in 2010 to 6,060 million units. As global demand for data CD-R's and audio CD-R's decreases, both Japanese and domestic manufacturers are shifting production to recordable DVDs, demand for which is expected to grow.

Global demand for Data and Audio CD-RWs — The decline in global demand for data and audio CD-RWs is expected to be in the double digits: 13% in 2008 to 178 million units and 11% in 2010 to 140 million units. Competition with other rewritable media such as compact memory cards and USB memory devices is the primary factor behind the expected decline in demand.

・Recordable DVDs

Global demand for Write-once DVDs — Global demand for write-once DVDs in 2008 will increase by 12% from 2007 to 6,195 million units and 2% in 2010 to 6,649 million units. Although the growth rate will fall into the single digits in 2009, demand will continue to expand. Write-once DVDs are the easiest-to-use media for PC and DVD recorder users and they are inexpensive, making them highly appealing. The expansion of terrestrial digital broadcasts in Japan is driving demand for CPRM media that can be used for copy controlled digital television broadcasts, and it is expected that the addition of "Dubbing 10" function to DVD recorders will further stimulate the demand. The forecast of demand declining in 2010 takes into consideration the appearance of blue laser disks.

Global demand for Re-writable DVDs — Global demand for re-writable DVDs will increase by 6% in 2008 to 487 million units but will decrease by 3% in 2010 to 476 million units, and is expected to continue decreasing after 2010. The mainstream re-writable DVDs are still 2X and 4X speed, and there is a substantial difference from write-once DVDs, which are mainly 16X speed. There are also strong indications that competition with other storage media including USB memory devices will decrease re-writable DVDs demand for PC applications.

Domestic demand for Video and Data DVDs — In Japan, demand for video DVDs will grow by 4% in 2008 to 562 million units, accounting for 54% of the total sector, and data DVDs will grow by 12% to 470 million units, accounting for 46% of the total sector. In 2010, demand for video DVDs will decline by 3% to 551 million units, accounting for 53% of the sector, and data DVDs will decrease by 2% to 484 million units, accounting for 47% of the sector thus, there will not be any substantial changes in the respective percentages, and the strong demand for video use in Japan is apparent compared to global demand. Write-once DVDs accounted for overwhelmingly high percentages of both video and data DVDs: 79% - 80% of video DVDs and 98% - 99% of data DVDs.

Global demand for 8 cm DVDs — Global demand for write-once and re-writable 8 cm DVDs will reach 105 million units in 2008 to surpass the 100 million unit level. In the camcorder market, DVDs, HDDs and card media are competing fiercely to become the successor to Mini DVs. The expansion of HDD camcorders is one source of instability concerning the growth of DVD camcorders, but 8 cm DVDs offer portability, expandable storage capacity, and ease of identifying content not provided by HDDs, and consequently, although growth rates will slow, demand for both write-once and re-writable DVDs is expected to grow at steady and strong paces.

Global production of Recordable DVDs — Recordable DVD global production is expected to be in the double digits in 2008, with production of write-once DVDs increasing by 12% to 6,868 million units, and production of re-writable DVDs is forecast to grow by 12% to 552 million units. Although the growth in total global production of write-once DVDs will slow approaching 2010, it is expected to continue increasing, but production by Japanese manufacturers is expected to decrease in 2010 as production starts to shift away from recordable DVDs following the introduction of blue laser disks.

・Blue Laser Disks (including BDs and HD DVDs)

Global demand for Blue Laser Disks — Global demand for blue laser disks is forecast to reach 24 million units in 2008 and 215 million units in 2010, with global market expansion starting in 2010. As high-definition televisions continue to penetrate the market and use of AV-type PCs increases in Japan, user-oriented players and recorders from both BD and HD DVD makers will be announced, forming an environment for rapid growth in demand.

・Magneto-Optical Disks

Global demand for 3.5 inch MO Disks — Demand for 3.5 inch MO disks is expected to continue declining, falling by 25% in 2008 to 4.66 million units and by 24% in 2010 to 2.66 million units. Demand in Japan accounts for more than 90% of global demand. Although there remains strong interest in some sectors, MO drives are not standard equipment on PCs, and competition with other media including data CD-Rs and recordable DVDs is pushing demand down.

Magnetic Media

・Audio Media

Global demand for Blank Audio Cassettes — Global demand for blank audio cassettes is forecast to decrease by 22% in 2008 to 167 million units and by 26% in 2010 to 96 million units, dropping below the 100 million unit level. The shift from cassettes to disks, the shift to portable storage media such as audio devices with HDDs, and Internet music distribution are all having a substantial impact on demand.

Global production of Audio Tapes — Global production of audio tapes (including dubbing use) is expected to continue decreasing substantially, falling 15% in 2008 to 679 million units and 25% in 2010 to 408 million units, but demand for dubbing use remains strong. Audio tapes demand for the Koran recorded cassettes in the Middle East in particular remains strong, accounting for the major of the pancake business.

Global demand for Audio MDs — Global demand for audio MDs will fall to 45 million units in 2008 (down 34% from the previous year) and to 21 million units in 2010 (down 28% from the previous year). Demand peaked at 243 million units in 2001, supported primarily by demand in Japan. As in the case of audio cassettes, demand for audio MDs has been affected by the global shift to portable storage media such as audio devices with HDDs and the expansion of music download via Internet. **Global production of audio MDs** will decline at a steady pace in conjunction with falling demand.

・Video Media

Global demand for VHS Video Cassettes — Global demand for VHS videocassettes will decrease to 177 million units in 2008 (down 24% from the previous year) and to 101 million units in 2010 (down 22% from the previous year). **Global production of video tapes** will drop substantially as a result of falling demand for VHS video cassettes and the shift in dubbing business demand, which accounts for a substantial portion of the market, to DVDs. It is expected that demand for video tapes in the dubbing business will approach zero by 2010.

Global demand for Camcorder Cassettes — Global demand for camcorder cassettes (VHS-C, 8 mm, and Mini DV) is forecast to fall 14% in 2008 to 178 million units and 17% in 2010 to 126 million units. Demand has been declining since peaking in 2005, and demand for Mini DV cassettes, which accounts for nearly 90% of the total, is being affected substantially by digital camcorders that use DVDs, HDDs, or card media. With the shift from tapes to DVDs, HDDs, and card media, demand for Mini DV cassettes is being pushed downward. All **Mini DV cassettes are produced** by Japanese manufacturers, but they are being forced to reduce production as demand falls.

・Floppy Disks

Global demand for Floppy Disks — Global demand for floppy disks will decrease by 28% in 2008 to 426 million units and will continue to fall by about the same rate thereafter. The decrease in demand is accelerating in Japan as a result of competition with other media, and the era of the floppy disk as a recording media product, demand for which reached 500 million units in 1995, is coming to an end.

Semiconductor Memory Media

・Compact Memory Cards

Global demand for Compact Memory Cards — Global demand for compact memory cards (including SD memory cards, Memory Stick, CompactFlash, xD-Picture Cards, Smart Media, MMC, T Flash, and ATA media) is forecast to continue expanding despite some slowing of the rate of growth. Global demand will increase 22% in 2008 to 660 million units and 8% in 2010 to 770 million units. Expectations for growth in use of mobile phones are particularly high in the BRIC countries (Brazil, Russia, India, and China), whose economies are booming. Depending on conditions, the growth will exceed forecasts.

In Japan, demand for high-capacity cards of 4 GB and larger is increasing rapidly. Demand for large storage capacities is increasing with the increasing adoption of One Segment Broadcasting record and play functions, and of shooting functions in mobile phones, and increasing sales of single-lens reflex digital cameras. Compact memory cards with capacities of the 4 GB and larger are expected to account for 28% of the market in 2008, 46% in 2009, and 60% in 2010.

Forecast for Global Demand and Production

(1) Optical and Magneto-Optical Disk
[CD-R/CD-RW]

◆ Global Demand for Data CD-R

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	309(91%)	277(90%)	252(91%)	231(92%)
North America	2,226(93%)	2,056(92%)	1,874(91%)	1,714(91%)
Europe	2,438(92%)	2,226(91%)	2,033(91%)	1,858(91%)
Other Areas	1,848(97%)	1,769(96%)	1,621(92%)	1,489(92%)
Global Total	6,821(94%)	6,328(93%)	5,780(91%)	5,292(92%)

Percentage in parentheses shows comparison with previous year.

◆ Global Demand for Audio CD-R

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	40(118%)	44(110%)	46(105%)	47(102%)
North America	168(88%)	154(92%)	140(91%)	127(91%)
Europe	43(93%)	37(86%)	33(89%)	30(91%)
Other Areas	14(93%)	13(93%)	12(92%)	11(92%)
Global Total	265(93%)	248(94%)	231(93%)	215(93%)

Percentage in parentheses shows comparison with previous year.

◆ Global Production of CD-R

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	1,616(74%)	1,366(85%)	1,214(89%)	1,093(90%)
Foreign Makers	6,184(101%)	5,874(95%)	5,446(93%)	4,967(91%)
Global Total	7,800(94%)	7,240(93%)	6,660(92%)	6,060(91%)

Percentage in parentheses shows comparison with previous year.
Actual figures.
Production includes CD-R for data and audio.
Production includes ODM.

◆ Global Demand for CD-RW (data and audio)

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	15(83%)	12(80%)	10(83%)	9(90%)
North America	82(87%)	71(87%)	62(87%)	54(87%)
Europe	79(90%)	69(87%)	61(88%)	55(90%)
Other Areas	29(88%)	26(90%)	24(92%)	22(92%)
Global Total	205(88%)	178(87%)	157(88%)	140(89%)

Percentage in parentheses shows comparison with previous year.

[Recordable DVD]

◆ Global Demand for Write-Once DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	836(111%)	905(108%)	938(104%)	919(98%)
North America	1,900(116%)	2,047(108%)	2,102(103%)	2,097(100%)
Europe	2,042(120%)	2,295(112%)	2,417(105%)	2,459(102%)
Other Areas	768(140%)	948(123%)	1,086(115%)	1,174(108%)
Global Total	5,546(119%)	6,195(112%)	6,543(106%)	6,649(102%)

Percentage in parentheses shows comparison with previous year.

◆ Global Demand for Re-writable DVD

Unit in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	121(110%)	127(105%)	123(97%)	116(94%)
North America	114(107%)	117(103%)	115(98%)	110(96%)
Europe	194(114%)	210(108%)	217(103%)	214(99%)
Other Areas	29(126%)	33(114%)	36(109%)	36(100%)
Global Total	458(112%)	487(106%)	491(101%)	476(97%)

Percentage in parentheses shows comparison with previous year.

◆ Japanese Demand for Video Use DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Write-Once DVDs	426(107%)	443(104%)	450(102%)	441(98%)
Percentage of total	79%	79%	80%	80%
Re-writable DVDs	113(112%)	119(105%)	116(97%)	110(95%)
Percentage of total	21%	21%	20%	20%
Total	539(108%)	562(104%)	566(101%)	551(97%)

Percentage in parentheses shows comparison with previous year.

◆ Japanese Demand for Data Use DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Write-Once DVDs	410(115%)	462(113%)	488(106%)	478(98%)
Percentage of total	98%	98%	99%	99%
Re-writable DVDs	8(89%)	8(100%)	7(88%)	6(86%)
Percentage of total	2%	2%	1%	1%
Total	418(115%)	470(112%)	495(105%)	484(98%)

Percentage in parentheses shows comparison with previous year.

◆ Global Demand for Write-Once 8 cm DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	5(167%)	5(100%)	5(100%)	5(100%)
North America	24(126%)	30(125%)	36(120%)	38(106%)
Europe	11(183%)	15(136%)	19(127%)	20(105%)
Other Areas	4(200%)	6(150%)	8(133%)	9(113%)
Global Total	44(147%)	56(127%)	68(121%)	72(106%)

Percentage in parentheses shows comparison with previous year.

◆ Global Demand for Re-writable 8 cm DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	6(150%)	7(117%)	7(100%)	7(100%)
North America	10(125%)	12(120%)	14(117%)	15(107%)
Europe	16(145%)	21(131%)	24(114%)	26(108%)
Other Areas	7(175%)	9(129%)	10(111%)	10(100%)
Global Total	39(144%)	49(126%)	55(112%)	58(105%)

Percentage in parentheses shows comparison with previous year.

◆ Global Production of Write-Once DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	2,385(123%)	2,676(112%)	2,797(105%)	2,764(99%)
Foreign Makers	3,763(118%)	4,192(111%)	4,473(107%)	4,629(103%)
Global Total	6,148(119%)	6,868(112%)	7,270(106%)	7,393(102%)

Percentage in parentheses shows comparison with previous year.
Actual figures.
Production includes write-once DVD for data and video.
Production includes ODM.

◆ Global Production of Re-writable DVD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	140(99%)	139(99%)	131(94%)	118(90%)
Foreign Makers	354(115%)	413(117%)	432(105%)	429(99%)
Global Total	494(110%)	552(112%)	563(102%)	547(97%)

Percentage in parentheses shows comparison with previous year.
Actual figures.
Production includes re-writable DVD for data and video.
Production includes ODM.

◆ Global Demand for Blue Laser Disk

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Global Total	5(500%)	24(480%)	85(354%)	215(253%)

Percentage in parentheses shows comparison with previous year.
Blue laser disks include BDs and HD DVDs.

[Magneto-Optical Disk]

◆ Global Demand for 3.5 inch MO

Units in thousands

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	5,700(71%)	4,280(75%)	3,210(75%)	2,410(75%)
North America	100(78%)	80(80%)	70(88%)	50(71%)
Europe	190(79%)	150(79%)	120(80%)	100(83%)
Other Areas	190(82%)	150(79%)	120(80%)	100(83%)
Global Total	6,180(72%)	4,660(75%)	3,520(76%)	2,660(76%)

Percentage in parentheses shows comparison with previous year.

(2) Magnetic Media
[Audio Media]

◆ Global Demand for Audio Tape

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	43(81%)	34(79%)	27(79%)	21(78%)
North America	45(73%)	33(73%)	24(73%)	18(75%)
Europe	25(69%)	16(64%)	9 (56%)	7(78%)
Other Areas	100(83%)	84(84%)	69(82%)	50(72%)
Global Total	213(78%)	167(78%)	129(77%)	96(74%)

Percentage in parentheses shows comparison with previous year.
Blank tape only. Actual figures.

◆ Global Production of Audio Tape

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	42(55%)	29(69%)	24(83%)	18(75%)
Foreign Makers	760(89%)	650(86%)	520(80%)	390(75%)
Global Total	802(87%)	679(85%)	544(80%)	408(75%)

Percentage in parentheses shows comparison with previous year.
Include demand for dubbing use. Converted to quantity of C-60.

◆ Global Demand for Audio MD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	62(73%)	40(65%)	26(65%)	18(69%)
Other Areas	6(60%)	5(83%)	3(60%)	3(100%)
Global Total	68(72%)	45(66%)	29(64%)	21(72%)

Percentage in parentheses shows comparison with previous year.

◆ Global Production of Audio MD

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	56(71%)	37(66%)	27(73%)	20(74%)
Foreign Makers	15(75%)	12(80%)	5(42%)	3(60%)
Global Total	71(72%)	49(69%)	32(65%)	23(72%)

Percentage in parentheses shows comparison with previous year.

[Video Media]

◆ Global Demand for Full-size Blank Video Cassette

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	82(75%)	67(82%)	54(81%)	44(81%)
North America	63(50%)	44(70%)	29(66%)	20(69%)
Europe	41(66%)	29(71%)	18(62%)	13(72%)
Other Areas	46(77%)	37(80%)	29(78%)	24(83%)
Global Total	232(65%)	177(76%)	130(73%)	101(78%)

Percentage in parentheses shows comparison with previous year.
Blank tape only. Actual figures.

◆ Global Production of Video Tape

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	41(61%)	34(83%)	26(76%)	20(77%)
Foreign Makers	230(62%)	160(70%)	110(69%)	85(77%)
Global Total	271(62%)	194(72%)	136(70%)	105(77%)

Percentage in parentheses shows comparison with previous year.
Include demand for dubbing use. Converted to quantity of T-120.

◆ Global Demand for Camcorder Cassette Tape (C cassette, 8 mm, & Mini DV cassettes)

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	31(86%)	25(81%)	20(80%)	15(75%)
North America	70(88%)	57(81%)	49(86%)	42(86%)
Europe	62(89%)	54(87%)	46(85%)	37(80%)
Other Areas	45(98%)	42(93%)	37(88%)	32(86%)
Global Total	208(90%)	178(86%)	152(85%)	126(83%)

Percentage in parentheses shows comparison with previous year.

◆ Global Production for Camcorder Cassette Tape

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	225(88%)	190(84%)	162(85%)	130(80%)
Foreign Makers	0	0	0	0
Global Total	225(88%)	190(84%)	162(85%)	130(80%)

Percentage in parentheses shows comparison with previous year.
Actual figures.

◆ Global Demand for Mini DV

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	30(86%)	24(80%)	19(79%)	14(74%)
North America	47(96%)	44(94%)	40(91%)	35(88%)
Europe	55(92%)	50(91%)	43(86%)	34(79%)
Other Areas	39(100%)	36(92%)	32(89%)	28(88%)
Global Total	171(93%)	154(90%)	134(87%)	111(83%)

Percentage in parentheses shows comparison with previous year.

◆ Global Production of Mini DV

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japanese Makers	185(92%)	166(90%)	145(87%)	120(83%)
Foreign Makers	0	0	0	0
Global Total	185(92%)	166(90%)	145(87%)	120(83%)

Percentage in parentheses shows comparison with previous year.
Actual figures.

[Floppy Disk]

◆ Global Demand for Floppy Disk

Units in millions

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Japan	33(70%)	23(70%)	16(70%)	12(75%)
North America	175(84%)	127(73%)	89(70%)	63(71%)
Europe	191(82%)	134(70%)	94(70%)	65(69%)
Other Areas	189(75%)	142(75%)	106(75%)	80(75%)
Global Total	588(79%)	426(72%)	305(72%)	220(72%)

Percentage in parentheses shows comparison with previous year.

(3) Semiconductor Media

◆ Domestic Demand for Small-sized Memory Card

Units in thousands

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Domestic	60,350(108%)	63,930(106%)	68,000(106%)	72,500(107%)
Global Total	540,000(140%)	660,000(122%)	713,000(108%)	770,000(108%)

Percentage in parentheses shows comparison with previous year.
Actual figures.
Domestic demand figures are included in global totals.

◆ Breakdown by Card Capacity

Units in thousands

	2007 Estimate	2008 Forecast	2009 Forecast	2010 Forecast
Up to 32 MB	5,310	1,280	0	0
Percentage of total	9%	2%	0%	0%
64 MB - 128 MB	14,000	8,950	4,760	2,900
Percentage of total	23%	14%	7%	4%
256 MB - 512 MB	15,090	9,590	6,120	4,350
Percentage of total	25%	15%	9%	6%
1 GB - 2 GB	22,930	26,210	25,840	21,750
Percentage of total	38%	41%	38%	30%
4 GB & larger	3,020	17,900	31,280	43,500
Percentage of total	5%	28%	46%	60%
Total	60,350	63,930	68,000	72,500

Percentage in parentheses shows comparison with previous year.
Total of SD memory cards, Memory Stick, Compact Flash, xD-Picture Card, Smart Media, MMC, T Flash, and ATA memory media.

For more information, please contact:
Japan Recording-Media Industries Association

Fax: 03-3501-0630
(Writing in English is acceptable)