



MITSUBISHI

THE BIG SCREEN COMPANY™

Digital

*Projection Television
Manufacturer Survey
April 2000*



HITACHI

Panasonic®

PHILIPS

Pioneer

ELITE

RCA



SONY

TOSHIBA

Manufacturer Survey April 2000

Survey Dates: April 10-April 11, 2000

Survey Requested By: Jeff Whitelaw, Manager Engineering Services Group And Planning Operations

Survey Conducted By: William L. Savastano, ISO Technical Writer, Engineering Services Group

Survey Scenario: Multiple manufacturers' projection televisions (both analog and HDTV-Upgradeable) surveyed at Orange County, California consumer electronic dealers for features, cabinet style and price relation, comparable to the Mitsubishi Digital Electronics America, Inc., 2000 product line (VZ7, V16 Chassis). Status as an employee of MDEA was not disclosed at any point during the survey. Product information was also obtained via the internet.

Manufacturers Surveyed: Mitsubishi Digital Electronics America, Inc.
Hitachi America, Ltd., Home Electronics Division
Matsushita Electric Corporation of America
Koninklijke Philips Electronics NV
Pioneer Electronics (USA)
Thomson Consumer Electronics, Inc.
Sony Electronics, Inc.
Toshiba America, Ltd.

Dealers Surveyed:

Circuit City
7777 Edinger Avenue
Huntington Beach, CA 92648
(714)895-9966

Paul's TV
500 N. Harbor Blvd.
La Habra, CA 90631
(323)724-6564

Circuit City
1101 Newport Center Drive
Newport Beach, CA 92660
(949)720-9223

Reel Time
34174 Pacific Coast Highway
Dana Point, CA 92629
(949)240-0555

Pacific Coast Audio Video
2816 East Coast Highway
Corona Del Mar, CA 92625
(949)640-5093

The Good Guys!
16672 Beach Blvd.
Huntington Beach, CA 92647
(714)375-7500

Overview

It is far too often that we, as employees of Mitsubishi Digital Electronics America, Inc., take for granted exactly what it is that we do each and every day, but after spending time out in the market, looking over the competition on the showroom floor, it becomes very clear that we design, manufacture, and support the biggest and the best when it comes to overall projection television picture, value and quality. Whether you look at the quality of the picture itself, the design and decoration of the cabinet, the features that are offered, or even the price, there truly is no better bet than a Mitsubishi projection television. This Manufacturer Survey is designed to inform you of why we should be very confident and proud of what it is we do each day at Mitsubishi, and to let you know what our competitors are offering our potential customers.

When you walk into The Good Guys! Huntington Beach store, there is no mistaking what catches your eyes first. Your head immediately turns towards the rows and rows of televisions, all showing the same picture from the same video source. You will see such names as Sony, Pioneer, RCA, Philips, and of course, Mitsubishi. As you make your way to the back of the television area to the projection television section, even to the most untrained eye, it becomes apparent that there is a select group of televisions that have a sharper, far more realistic picture than the televisions around them. One particular set-up of note was a Mitsubishi VS-60705 flanked by an RCA P61940 on the left and a Sony KP-61V80 on the right. The RCA has a good picture with reasonable brightness and clarity, but there are definitely artifacts which make the picture look like you are watching a television picture. The Sony is a step up from the RCA with a sharper picture and more clarity in movement. However, it is the Mitsubishi that provides the most realistic, sharpest picture of the grouping. There is no mistake here for the consumer who is standing in front of this three-television set-up on the showroom floor. If you want the best picture quality, you will need to buy a Mitsubishi projection television.

So, what else does the consumer who purchases the Mitsubishi get for their dollar?

Let's make some comparisons.

First, we will look at the projection television itself as it would be noticed sitting in a home. The first thing that would be noticed (if the picture was not turned on, of course) is the cabinet. All three televisions offer the same dark, almost black finish, but when you take a closer look at the cabinets, you find that the RCA and Sony fail in comparison to the Mitsubishi cabinet. Though closest in color, the RCA cabinet's wood grain appears to be very synthetic and low quality. The Sony cabinet is the grayest of the three (by their design), and is very rounded, but in my opinion a little too rounded at the corners and looks like a cabinet that was made specifically for a television, not for appeal. The Mitsubishi, however, offers a cabinet that feels of high quality to the touch, does not show the wood grain and is much more aesthetically pleasing to the eye. Of all the manufacturers surveyed, throughout their entire product lines, there is not a single cabinet design that looks nicer, or appears of higher quality, than Mitsubishi.

Now, let's look at the features that affect picture quality. The RCA comes with a 3-Line Comb Filter. Enough said. Despite the digital focusing mechanism in the RCA, their RCA version of our Velocity Scan Modulation, a high-brightness screen, etc., etc., etc., the clarity of the picture does not even challenge that of the Mitsubishi. Sony does offer a 3D Y/C Comb Filter that brings them into the ball park, but even despite their Sony version of our Velocity Scan Modulation and shading compensation circuitry, the Mitsubishi picture is still the sharpest and most uniform throughout.

For user interface, the RCA offers 2 rear S-Video connections, still offers direct speaker connection to the television, but fails to incorporate a component video input, which as the top-of-the-line 60" 4:3 RCA product, is a glaring shortfall. The Sony, on the other hand, offers two component video inputs in their top-of-the-line 60" 4:3, whereas we only offer one. We do not offer two component connections until our HDTV-Upgradeable 4:3 60" unit. The rest of the Sony connections are the same as the Mitsubishi. Also of particular note, however, in terms of interface is the on-screen menu system. The Mitsubishi ViewPoint Menu System is the

easiest to navigate through and appears to be of a higher quality, with better looking graphic interface.

In conclusion of this comparison, the only place where Mitsubishi was bested was in the two component input on the Sony, where we only had one. Other than this one detail, the Mitsubishi far surpassed both the RCA and Sony.

When looking at price of the televisions, as we have been accustomed to in our time here at Mitsubishi, ours is the most expensive of the three. With the RCA at \$2599 and the Mitsubishi at \$3499, it is very obvious when you pay more for the Mitsubishi, you are paying for the added features and higher picture quality. There is definitely no question there. When looking at the Sony, which is \$2799, the customer has to make the decision of whether the better picture quality and higher-quality cabinetry of the Mitsubishi are worth the additional \$700.

I will get into further detail in regards to what the other manufacturers' products that were surveyed offer in comparison to Mitsubishi, but there is still one more comparison scenario. Let's talk digital. We are all very much aware of the importance of the Mitsubishi presence in the digital television market. All of our market indicators have shown that we sell more digital televisions than any of the other manufacturers that were surveyed. It was in this survey that it can easily be seen why we are number one in digital. We do digital better, nicer, and (going against the preconceived notion of Mitsubishi products) sometimes less expensively than our competitors.

In the digital market, some of the manufacturers surveyed are not much competition. Philips and RCA both offer only one model, RCA a 61" and Philips a 64". In looking at the product specifications, these products do not meet the high-standards of our digital units. The RCA does not even offer component video input. Enough said again. The Philips unit only offers a 3-Line Comb Filter, but does offer a VGA/SVGA port on their first generation product. Though both of these units are full 1080i, the consumer is definitely going to notice a lack in picture quality and user interface when comparing to Mitsubishi.

Our main competition in the digital arena

is the Sony "XBR" series and the Pioneer "Elite" series. The Sony XBR offers competition for our Digital 4:3, and Elite offers competition for our Digital 16:9. The manufacturers both set these units apart from their "regular" product lines, much like we do with our Diamond Series televisions. Again, the Sony picture is undoubtedly the closest in quality to the Mitsubishi, but does still fall short. The difference in the digital market, however, is that the consumer has a much easier decision between Mitsubishi and Sony. Do I pay \$6999 for the WS-65905, or do I pay \$11999 for the Sony KWP-65HD1 with an inferior picture. The Mitsubishi picture is just clearer, sharper, and much more life-like. Also, the Sony cabinets fails miserably when compared to the Mitsubishi Diamond Series burl finish.

Pioneer's Elite line is giving Mitsubishi a run for the money in the Digital 16:9 arena. The Elite picture is similar to the Sony XBR. It is not as bright as Sony XBR, but it is just as sharp. However, it is not as sharp and life-like as the Mitsubishi. The Pioneer Elite line offers a high-gloss black cabinet, very similar to ours, but without the burl swirl finish that adds a real touch of class to the Mitsubishi cabinet. Pioneer's "Elite," top-of-the-line digital, the PRO-710HD is Pioneer's best offering, but the picture does not meet the quality of the WS-65905, and, much like the Sony, the Pioneer out-prices the Mitsubishi at \$8300.

The bottom line in digital is Mitsubishi is doing it better, in a nicer cabinet, and for less money than the competition. As we move to release the 2001 line, Mitsubishi is on the right track with the new menu system, the VGA port, our Satellite/HDTV receivers, and above all, the DLP unit is going to continue to insure that we are the top notch in digital television.

Also of particular note in this survey is that the word is out about Mitsubishi moving away from the 4:3 digital offerings. I was even told by a very passionate Mitsubishi promoter, Bob Tucker of Reel Time in Dana Point, that if I wanted a 4:3 Mitsubishi HDTV-Upgradeable unit I had to be quick because Mitsubishi was discontinuing them to concentrate on the 16:9 units.

The general consensus everywhere I went

(except for Circuit City of course) was that Mitsubishi offers the best quality picture and better-made television and that Mitsubishi is leading the change to digital television.

I hope to continue to use this survey to inform MDEA of the latest developments in the technology in and around the digital television market. With the nature of our competitive business, it is very beneficial to know what the other guy is up to.

So, who exactly are these other guys? We know their brand-names very well, so let's look at each of the manufacturers:

HITACHI

When looking at the Hitachi units at Circuit City, I could not compare directly against a Mitsubishi picture as Circuit City does not carry our products, but by comparing the Hitachi to a Sony and then, in turn, comparing that same Sony to a Mitsubishi at The Good Guys!, it becomes apparent that Mitsubishi has a better picture than Sony, and in turn, a much better picture than Hitachi.

Hitachi's product line starts out lower in features than our Silver Series, and it would appear Hitachi's main emphasis right now is on the high-end 4:3 analog units. Hitachi offers many units in this area of the market. Hitachi is still stressing a more powerful internal audio system, going up to 60 watt speaker systems in their higher-end models. Hitachi does not have a strong digital showing yet, in fact offering only three models at this time, one HDTV 16:9 and two "almost-HDTV" 1000-Line 4:3's.

Hitachi Analog vs. Mitsubishi Analog:

Hitachi begins their product line with their "CX" series, supporting only 800 lines of resolution, a 2-Line Comb Filter, S-Video inputs, a basic menu system, but lacking a two-tuner picture-in-picture. The "CX" series really does not compare to our product line.

From there, Hitachi moves up to the "EX" series which offers 850 lines of resolution, two-tuner PIP, illuminated universal remote control, a nice on-screen menu system, and component video inputs. There is only one "EX" model, the

50" 50EX39B to compete with our Silver Series, leaving our 45" unchallenged.

Moving on to the competition for our Gold Series, however, Hitachi offers three different series to complete. The "GX" series, which surpasses our 850 lines of resolution with 1000 lines, but has only a nine-point convergence system and a 3-Line Comb filter starts out this competition. The "GX" also is offered only in one size, the 50" 50GX49B. The "UX" series is available in both a 50" (50UX57B) and a 60" (60UX57B). The "UX" series is where we begin to see a more competitive product when comparing to Mitsubishi's Gold Series, with an built-in protective shield, Front Surface Mirror, and auto digital convergence. The "UX" also boasts 1000 lines of resolution, however, still is using a 3-Line Comb Filter. We win out against the UX series with our 3D Y/C, superior menu system, and 64-point convergence. In an even more competitive offering, the "SBX" series in a 53" (53SBX59B) and a 61" (61SBX59B), also boasts 1000 lines of resolution, but finally adds a 3D Y/C Comb Filter. With the "SBX" series, Hitachi specifications site high output CRTs, auto digital convergence, a 4-event channel timer and a Child Lock Set that includes channel lock, video lock, quick lock, TV Time Out, front panel lock out, and of course, V-Chip lock. On the Hitachi side, there is a On-Screen Help and Auto Demo mode that we do not have a comparable feature to, and audio features such as a 7-band equalizer and 60 watt speaker system are built in. On the Mitsubishi side, our 64-point convergence, cabinetry and overall picture quality stand out. It was the Hitachi 61SBX59B that I compared to the Sony KP-61V80, and the Sony had a higher quality picture. The Sony picture was clearer, more detailed and more evenly-bright throughout compared to the Hitachi. Then, in turn, the Sony KP-61V80 fell short when compared to the picture quality of the VS-60705.

In summary, Hitachi overall offers more lines of resolution, but falls short in the most other video feature categories in comparison with our Gold Series. Hitachi offers a more powerful and dynamic audio system built into their televisions as well. Our Gold Series, however, tops Hitachi in overall picture quality and cabinetry. Also, the Mitsubishi VS-70705 is unchallenged by the

Hitachi product line.

Hitachi Digital 4:3 vs. Mitsubishi Digital 4:3

To start off with, Hitachi offers only two Digital 4:3 units, the 53" 53SDX89B and the 60" 60SDX88B. These immediately fail in comparison to the Mitsubishi VS-50805 and VS-60805 as the Hitachi units offer only 1000 lines of resolution. Hitachi specifications site that these two units have 1080i HDTV-capability with a Set-Top Box, but what they fail to mention to the consumer is that they are not going to get a true HDTV signal with only 1000 lines of available resolution. These two Hitachi units boast the same video and user features as the SBX analog series, as well as offer the high-end 60 watt audio system. You may get better sound directly out of the Hitachi digital units, but you will not be able to get a true HDTV picture. Again, Mitsubishi wins out with the better overall picture quality, a much nicer cabinet, and above all, a true HDTV picture.

Hitachi Digital 16:9 vs. Mitsubishi Digital 16:9

The only Hitachi offering in this format is their 61" 61HDX98B. This unit does offer a full 1080i resolution, similar 4:3 picture formatting to the Mitsubishi counterparts, digital 3D Y/C Comb Filter, high-brightness screen and a very pleasing menu system, though not up to par with the Mitsubishi menu. The Hitachi advantages are a built-in 60 watt audio system and a built-in DIRECTV receiver for both SDTV and HDTV. Again, a Hitachi disadvantage is a lower quality picture. In the digital 16:9 forum, the Hitachi 61HDX98B when compared to the Sony KWP-65HD1 had a very similar picture, but the Sony did win out in brightness, and again, in turn, the Sony fell short when compared to the Mitsubishi leading me to the conclusion that the Mitsubishi digital picture won out against the Hitachi.

Two of Circuit City's main selling points on the Hitachi were the built-in DIRECTV receiver and the built-in audio system.

In summary, when looking at product specifications, the Hitachi has these two advantages, but the consumer will have to weigh these against the advantages of the Mitsubishi picture and overall design. When looking at our product line, we have to infer that the customer

would be comparing the 61" Hitachi to either the WS-55805, WS-55905, or WS-65905. In my opinion, the customer might see reason to choose the Hitachi 61" over the WS-55805, but due to the high-end cabinet design on the WS-55905 and the larger, bolder picture and fine cabinet on the WS-65905, I find it highly unlikely that a consumer who could budget the purchase of a WS-55905 or WS-65905 would opt to buy the Hitachi 61" instead.

With just this one unit, this leaves our 46" tabletop and 73" units completely unchallenged by Hitachi.

The Panasonic logo is displayed in a bold, blue, sans-serif font. The word "Panasonic" is followed by a registered trademark symbol (®).

Unlike with the Hitachi units, I was able to view most of Panasonic's offerings side-by-side (or in some cases near) with our Mitsubishi units.

Overall, you are going to get a better picture, much nicer cabinet, and a better user interface with the Mitsubishi, including a far superior digital convergence. Panasonic, much like Hitachi, is still putting their major emphasis on the high-end 4:3 analog set with three 51" and two 61" models. Panasonic, also much like Hitachi, does not have a strong digital showing, however Panasonic does not even offer one true HDTV unit, even in 16:9 format. On Panasonic's side, however, they do offer on-screen menu systems in French in addition to the English and Spanish that we offer, as well as a mock "screen-saver" system called Game Guard. Throughout the line, excluding their "high-tech" look on their 16:9, the Panasonic cabinet comes close, but the Mitsubishi still offers a classier look.

Panasonic Analog vs. Mitsubishi Analog

For the Mitsubishi Silver Series, Panasonic offers only one product for competition, a 51" PT-51G44, leaving our 45" unchallenged. The PT-51G44 does offer two-tuner PIP, digital convergence, similar lenses to Mitsubishi, Sleep Timer, On/Off Timer and V-Chip lockout. Panasonic is lacking, however, with a 3-Line Comb Filter, only 750 lines of resolution, no

“special” V-Chip options such as lock by time, nor does Panasonic offer component video inputs. As you can image from these specifications, when viewing this Panasonic unit compared to a VS-50605, the Mitsubishi clearly wins out, especially when you consider the mere \$400 difference between the \$2199 VS-50605 and \$1799 PT-51G44.

For competition with our Gold Series, Panasonic offers two series of their own, the “G” series and the “SX” series. The “G” series units, a 51” (PT-51G54) and a 61” (PT-61G54) are the same specifications as the PT-51G44, but with a protective shield attached. With 3-Line Comb Filter, only 750 lines of resolution, and no component video inputs, these two “G” series units are no comparison and Mitsubishi Gold Series wins outright with a far better picture. In the 50”, the consumer must decide if the superior Mitsubishi picture and quality cabinet are worth the additional \$800 dollars between the \$1899 PT-51G54 and the \$2699 VS-50705. In the 60”, we see the price spread increase to \$1100 between the PT-61G54 at \$2399 and the VS-60705 at \$3499.

Moving up to the Panasonic “SX” series, we see a better line for competition against the Mitsubishi Gold Series. The “SX” series, also in a 51” (PT-51SX60) and a 61” (PT-61SX60), upgrade to 850 lines of resolution, a 3D Y/C Comb Filter and a high-brightness screen. What is still lacking, however, is the V-Chip user interface features such as lock by time and there is still no component video input on the “SX” series. Though the “SX” series did offer a much brighter, clearer picture than the “G” series, when looking at the Panasonic PT-51SX60 next to the VS-60705, the Mitsubishi picture is brighter throughout and is much sharper. Rich color tones also seemed to be lacking on the Panasonic unit. The Panasonic PT-51SX60 is priced at \$2099 vs. the VS-50705 at \$2699, and the PT-61SX60 is priced at \$2699 vs. the VS-60705 at \$3499. When comparing the Panasonic “SX” to this Mitsubishi Gold Series, the consumer will see the Mitsubishi picture is better, the cabinetry is still classier, the user interface and V-Chip on the Mitsubishi is superior, and the Mitsubishi offers component video inputs. In my opinion, the consumer who can budget the Mitsubishi will not

“downgrade” to the purchase of the Panasonic. Also, if the consumer is in the market for a 55” or 70” analog unit, there is no offering in these sizes from Panasonic.

Panasonic Digital 4:3 vs. Mitsubishi Digital 4:3

In 4:3 digital, Panasonic does not offer strong competition against the Mitsubishi 4:3 digital units. Panasonic offers a 51” (PT-51DX80) and a 61” (PT-61DX80). Both have 3DY/C, high-brightness screen, 2 Component Video inputs, but in no way does the 850 lines of resolution allow these two units to come close to the VS-50805 or the VS-60805. Mitsubishi offers the consumer 960i and 1080i, which the Panasonic units are not capable of doing. Price wise, you pay \$1000 more for the Mitsubishi 4:3 digital vs. the Panasonic 4:3 digital (Mitsubishi VS-50805 at \$3999 and VS-60805 at \$4499 vs. Panasonic PT-51DX80 at \$2999 and PT-61DX80 at \$3499) because the Mitsubishi is true HDTV.

Panasonic Digital 16:9 vs. Mitsubishi Digital 16:9

In the 16:9 arena, again, there is no contest. Panasonic’s only offering, the 56” PT-WFX95 at \$5499 offers only 850 lines of resolution in a very modern-looking, but unaesthetically pleasing grey cabinet. If you compare this unit to the WS-55805 which has the a price tag of \$4499 (a full \$1000 cheaper!), the consumer, in my opinion of course, would have to not know about the Mitsubishi existing to not want to choose the WS-55805 over the Panasonic, due to the fact that the Mitsubishi is true HDTV, has a higher-quality picture, and a much nicer cabinet. If you went to the dealership to spend \$5499 on the Panasonic unit and then saw the WS-55805 at \$1000 less, or the WS-55905 for the same price, I could not explain why the consumer would not take a Mitsubishi home instead.

With only one 16:9 unit, Panasonic leaves our WT-46805, WS-65905 and WS-73905 completely unchallenged.

An Interesting Contrast

An interesting contrast, however, to the inferior Panasonic digital televisions is their HDTV Receiver/D-VHS Recorder HDTV recording system. Panasonic offers a D-VHS

VCR, the PV-HD1000, which can be connected to their Set-Top HDTV Box, the TU-DST51 via IEEE 1394 "Fire-Wire" connection. More importantly, however, is that according to a Panasonic customer service representative that I spoke with on the phone, this HDTV Receiver/D-VHS Recorder system connects to the television using Component video connections, thus allowing it to be hooked up to any television that will receive Component video. The D-VHS recorder will record all 18 formats of DTV. Though this system currently has roughly a \$2000 price tag, it is definitely an interesting offering by Panasonic. It will be even more interesting to see what Panasonic's second generation recording system will offer.

The Philips logo, consisting of the word "PHILIPS" in white, bold, sans-serif capital letters on a blue rectangular background.

MCI Worldcom's latest marketing campaign is now telling us that Generation X is no more, and that Generation X'ers are now part of Generation D, standing for "Digital." What does this have to do with projection televisions? Philips has, in my opinion, backed themselves into an oxymoron with their 2000 product line. When you look at their product, it seems as if they are making projection televisions to appeal to Generation D. As I surveyed Philips' latest offerings, a few models in the stores, and the full product line over the internet, I find it very hard to see a Mitsubishi customer, or potential Mitsubishi customer going for one of these Philips projection televisions. Before I looked at the picture, before I checked the connections offered, I immediately noticed that these projection televisions are made to look more like an over-sized computer monitor on a stand than a tried and true projection television. It is my opinion that the Mitsubishi customer, or potential Mitsubishi customer, would feel the same way. Now, where the oxymoron comes in is that the Philips units, apparently geared for the "younger, more high-tech" consumer, offer very little in terms of technology, and virtually a no-show in the digital arena. If you want good picture quality, buy Mitsubishi. If you want a classy, prestigious looking cabinet, buy Mitsubishi. If you want digital, buy Mitsubishi. If you want the "latest,

coolest craze" in cabinet design and an ad campaign that is geared towards your youthful Generation D'ness, then the inferior Philips television is for you. It may sound harsh, but I was truly that unimpressed by most of what Philips had to offer.

Philips Analog vs. Mitsubishi Analog

For the Mitsubishi Silver Series, Philips offers no 45" television, leaving the VS-45605 unchallenged. For the VS-50605, there is the Philips 9P5031C, offering 800 lines of resolution, a "notch" filter and one-tuner PIP. Bottom line, the picture and features of this unit struggle to be comparable with the picture on my grandparents' 10-plus year-old VS-6007R. Granted, this is an intro-line product, but it is far surpassed by Mitsubishi's intro product. Though the 9P5031C does offer Component video input and a comparable 10 watt audio system, the one-tuner PIP, subpar on-screen menus, subpar cabinet, and low picture quality fail in comparison to the Mitsubishi VS-50605. Philips 9P5031C is \$1499, Mitsubishi VS-50605, \$2199. Again, any consumer who can budget the Mitsubishi, if they are even considering the Philips, I feel, will choose the Mitsubishi.

What Philips does here is turn around and offer this same low-level intro television in a 55" and 60" version, the 9P5531C and the 9P6031C. Mitsubishi does not make a comparable unit to these two large, extremely low-end products.

Moving on to the Gold Series competition, Philips offers three units for competition. The 50" 9P5044C (\$1899), the 55" 9P5544C (\$2099), and the 60" 9P6044C (\$2299) have the exact same features, just in different screen sizes. Comparing this Philips "44C" series to the Mitsubishi Gold Series, Philips offers a 3-Line Digital Comb Filter, a two-tuner PIP and a multi-point digital convergence. When looking at the performance of the 9P6044C, it is apparent that the picture quality is subpar to Mitsubishi VS-60705. One thing Philips does add here is a "convenient" composite input, such as the one offered on the front of our units, but they have placed the input, uncovered, smack in the middle of the side panel of the "stand" portion of the cabinet on all three models in this line. This look is much too Generation D for my taste. This obscure

placing of the “convenient” composite input really brings down the appearance of the quality of the unit. Though Philips “44C” series units are comparably much less in price, the consumer will easily realize that the Mitsubishi Gold Series costs more due to the fact that it has a nice cabinet and far superior picture. Philips does offer a 64” unit in this series, the 9P6444C, but what you see when you add the extra four inches in this series is an even lower quality picture. Though there is no Mitsubishi 65” analog unit, a size constraint would be the only reason for a consumer to accept the \$2699 price tag on the 65”. There is no challenger in this Philips series for our VS-70705.

Just when I was getting ready to write Philips off entirely, they did step up to the plate with their “P9271” series in terms of attempting to offer the consumer a “higher-end” analog unit. However, for this series being Philips’ concentration on the high-end analog unit, the cabinet looks like something out of a science fiction movie. For features, connections, and user interface, this series is comparable to the Mitsubishi 4:3 digital units, with 2 Component inputs, two-tuner PIP, an advanced menu system, and even goes a little further than the Mitsubishi with a fourth composite input and a 40 watt audio system. The difference here, however, is that these units have no digital television capability. There is no 50” offering in this series. The 55” offering, the 55P9271 (\$2399) still trails the Mitsubishi VS-55705 in price by \$600, but although they have added additional inputs and a more powerful audio system, the “P9271” picture performance (and picture producing features) are exactly the same as Philips’ “44C” Series. When looking at the Mitsubishi Gold Series, the potential Philips customer will most likely allow the importance of picture quality to outweigh the “onslaught” of inputs and 30 additional watts of audio power. For the 60” unit, 60P9271 at \$2699, the Mitsubishi is \$800 more. This line also offers a 64” unit to which we do not have a competing unit, as its picture quality does not reach that of our 70” unit, basically, leaving the VS-70705 unchallenged by Philips.

Philips Digital 4:3 vs. Mitsubishi Digital 4:3

Philips has no offerings in this area. The

VS-50805 and VS-60805 are unchallenged.

Philips Digital 16:9 vs. Mitsubishi Digital 16:9

Although there is only one digital offering from Philips, a tie for last place with RCA in total digital offerings, this one unit is the only Philips unit that I found to be a true Mitsubishi competitor. The 16:9, 64” 64PH9905 offers true HDTV 1080i, Digital Comb Filter, and 2 Component video inputs, much like the WS-65905. The Philips unit only offers 2 composite inputs on the rear panel, but does have both analog and digital audio connections on the same rear panel. The digital audio connections are 120-watt powered and Generation D’ers will appreciate the VGA/SVGA port and the LCD display touch-screen remote control with learning capability. The “convenient” composite input on the side was done right on this unit; it is recessed so you cannot see it sticking out the side of the cabinet. The cabinet is not as “futuristic” in appearance as the other Philips units in a black, yet still rounded design. Cabinet wise, though, for overall appearance and quality, this unit does not compare to the WS-65905. The Mitsubishi customer will appreciate the Mitsubishi cabinet, while, although the true Generation D’er might prefer the Philips, there is a \$9999 price tag, a full \$3000 more than the \$6999 WS-65905.

What about the picture quality? After looking at the Philips analog units, I truly expected an inferior digital picture, but I was proven wrong by seeing the unit on display with a pre-recorded HDTV video source. Though still slightly lower in quality than our picture (due mostly to “digital” artifacts that made the picture not so sharp at points, almost jittery at times), the Philips picture was still mostly impressive. Bottom line, is the Philips picture worth \$9999 when compared to the Mitsubishi picture at \$6999? No, it was not.



With my background in the Consumer Relations Department, in conducting this survey, I was anxious to get to a dealer where I could take the time I needed to compare to the top-of-the-line Pioneer product called “Elite” to our

own Mitsubishi Diamond Series. In the time I spent in Consumer Relations, it was the Elite that I heard most often compared to our units. For a 1999 Consumer Relations survey, in browsing at Ken Crane's Westminster, the salesmen were truly torn between the Mitsubishi Diamond Series and Elite. I know some of that indecisiveness was quelled with our 2000 Line, but by far, going into this survey, the Elite remained our stiffest competition. Before we get into our sweet stuff, however, we have to eat our vegetables, so let's look at the regular Pioneer line, known simply as "Pioneer" by name. I was unable to view a "Pioneer" regular-line model at the dealerships I went to. I was told this was due to stock issues, however, let's compare using specifications.

Pioneer Analog vs. Mitsubishi Analog

Again, the VS-45605 goes unchallenged. For the VS-50605, Pioneer offers their SD-P50A3-K/Q. This Pioneer unit, though competitive in some video features, fails in overall picture quality. It offers a 2-Line Comb Filter compared to our 3D Y/C, and 9-point convergence system compared to our 64-point. There is Pioneer's Scan Velocity Modulation, a High-Brightness Screen, Audio/Video Memory settings, a comparable on-screen menu, dual RF, and 1000 lines of resolution. However, there are no Component video inputs and only 4 watts in audio power. Pioneer boasts a 140-degree viewing angle, compared to our 120-degrees, and also of note, Pioneer boasts a slim cabinet of 23 inches, 3/16 of an inch less deep than the VS-50605. At \$200 more than the \$2199 Mitsubishi, it would seem the consumer would prefer the superior picture-producing features of the Mitsubishi over the SD-P50A3-K/Q.

Much like the Philips intro series, Pioneer offers this very basic intro model up into larger sizes, whereas Mitsubishi does not take the intro Silver series above the 50" size. Pioneer offers a 55" SD-55A3-K at \$2399 and a 62" SD-62A3-K at \$3399.00 I cannot see the consumer choosing a 2-Line Comb Filter, 9-Point convergence and no component video inputs at these prices, especially in the 60" analog arena, where they could for just \$100 more move up to a Mitsubishi Gold Series VS-60705.

Speaking of the Gold Series, let's look at

the competition Pioneer offers. Pioneer offers three sizes in their next line up, their "5" Series. These units also offer only 9-Point convergence, but meet or come close to our Gold Series units in all other features and offerings. Our cabinet design still wins out, but the Pioneers do come with a version of our Velocity Scan Modulation, 3D Comb Filter, 3-Setting Color Temperature Adjustment, A/V Memory settings, 1000 lines of resolution (we have 850), front surface mirror, 0.72mm pitched high-brightness screen, 10 watt audio with 6" (we offer 5") speakers, and also, boast a 140-degree viewing angle (where we site 110). Though I was not able to make an on sight comparison of these models in my survey, on the next survey, I will be sure to check our 2001 Gold Series very closely against the replacement for this Pioneer series, no matter how far I have to go to see them because I feel this is truly some of the best competition so far for our Gold Series. Where we do have Pioneer beat in this competition, however, is in the price. The SD-P50A5-K is \$3099 vs. our VS-50705 at \$2699. The SD-55A5-K is \$2599 vs. our VS-55075 at \$2999. The SD-62A5-K is \$4099 vs. our VS-60705 at \$3499. The VS-70705 is unchallenged by Pioneer.

Pioneer Digital 4:3 vs. Mitsubishi Digital 4:3

Pioneer has no offerings in this area. The VS-50805 and VS-60805 are unchallenged.

Pioneer Digital 16:9 vs. Mitsubishi Digital 16:9

Pioneer proves to be some of our stiffest competition when it comes to the digital 16:9 arena, with two units in each of the 53", 58" and 64" sizes, one unit in each size as part of their regular "Pioneer" line, and one unit in each size to make up their "Elite" projection television line-up.

First, let's look at the regular "Pioneer" 16:9 digital units. The WT-46805 goes unchallenged by Pioneer. For the WS-55805 and WS-55905, Pioneer offers the SD-532-HDS and the SD-582-HDS. The Pioneer 53" SD-532-HDS and the Mitsubishi VS-50805 both offer true HDTV 1080i, a line-doubler for NTSC, 3D Y/C Comb Filter, Split Screen, POP, 3 or 9 channel "scan," multiple NTSC Formats, front surface mirror, a "screen size" remote control receiver,

Channel Name, 2 RF inputs, 2 Component video inputs, 3 rear and 1 front S-Video input and A/V Monitor and Tuner Output. The Pioneer cabinet is a matte black finish very similar to ours, and definitely, the nicest looking of all of our competitors. The 58" SD-582-HDS has the same features, just in a 58" size. The SD-532-HDS matches the \$4499 price of the VS-55805, and the SD-582-HDS matches the \$5499 price of the VS-55905.

So, let's now look at these comparably priced units. In the SD-532-HDS to VS-55805 comparison, Mitsubishi wins out with a 2" larger viewing area on the screen, still a slightly nicer cabinet, a 0.52mm pitch screen vs. the Pioneer 0.72mm and Super QuickView channel memory. Pioneer wins out with a 72-Point (vs. our 64-Point) convergence system, a 5-step color temperature adjustment (vs. our 3), and a 20 watt (vs. our 10 watt) audio system with 6 1/4" (vs. our 5") speakers. The consumer considering these units really has a tough decision to make in some areas. I think, however, that the Mitsubishi reputation and the repeat Mitsubishi customer is allowing us to win out in this type of decision.

In the SD-583-HD5 vs. WS-55905 comparison, the customer is gaining only a larger screen size in the Pioneer line, but no additional features. Though the 58" screen size surpasses our 55" viewing area by 3 inches, the Mitsubishi customer, on the other hand, for the same price difference is getting the burl finish, which although the black matte Pioneer is nice, leaves Mitsubishi undoubtedly the winner in the cabinet area of this comparison. Also, the Mitsubishi customer is getting upgraded to a 2-way speaker system. The customer must decide what is the more important feature to them here, the 3" in viewing, or the much nicer Mitsubishi cabinet and 2-way speaker system.

Now, for the WS-65905 challenger, the Pioneer SD-641-HDS, a 64" offering, matching the WS-65905's price of \$6999. Mitsubishi wins out here with 64-point convergence (the Pioneer is offering only 9-point), and of course, the small 1-inch viewing size difference, and our ever-overpowering burl finish cabinet design. Pioneer wins out with the addition of French to their menu, 30 watt audio power (as opposed to our 10) and 6 1/4" 2-way speakers (vs. our 5" 2-ways).

The customer is in the same bind here, and must decide what is the more important feature, Pioneer's audio or French, or our superior cabinet design and picture.

For the regular Pioneer line, there is no challenger for our WS-73905.



Elite Digital 16:9 vs. Mitsubishi Digital 16:9

This was the most interesting of the digital comparisons, because although Pioneer offered similarly priced units with, for the most part, the same features as our Diamond Series in 53", 58", and 64" sizes, they take a large step further to compete by offering their Elite line. To obtain a better understanding of the Elite television, and the entire Elite line, let's look at a portion of the auto industry. Honda and Acura dealerships both sell a line of automobiles that Mitsubishi Motors must compete against in the US market. However, both the Honda-labeled car and the Acura-labeled car are made by Honda. It is just that the Acura is sold under the name "Acura." A single Mitsubishi automobile now must compete with two separate offerings from Honda, one sold under the Honda name, and one sold under the Acura name. This is very similar to the competition that our MDEA Diamond Series is facing from Pioneer Electronics. Our one WS-65905 has two offerings made by Pioneer to compete with, the "Pioneer" SD-641-HD6 and the "Elite" PRO-HD710. Our one WS-55905, in turn, has three offerings made by Pioneer to compete with, the 58-inch "Pioneer" SD-582HD5, the "Elite" 53-inch PRO-510HD, and the "Elite" 58-inch PRO-610HD.

Similar to what Honda has done with Acura, Pioneer has labeled these three television models "Elite," and is marketing them as a cut above the "Pioneer" digital televisions. This is truly an attempt by Pioneer to give these Elite televisions the same type of elevated name and reputation that Mitsubishi has long enjoyed in the television market. It is the "Elite" that we have seen to be very stern competition in the market, and the line of televisions that consumers are most often comparing to our high-end Diamond

Series offerings.

Major differences between the PRO-HD510 and the WS-55905:

	PRO-HD510	WS-55905
Price	\$6300	\$5499
Screen Size	53"	55"
H. Resolution	1150	1200
HDTV Tuner	Plug-In Card	Set-Top Box
Audio Power	20 watt	10 watt
Speakers	6 1/4"	5" 2-way

Remote

	All Buttons	Some Buttons
BNC Input	1	None
Center Spkr		
Input	1	None
VCR Output	1	None
15-pin RGB	1	None
Color Temp.	5 Settings	3 Settings

Major differences between the PRO-HD610 and WS-55905:

	PRO-HD610	WS-55905
Price	\$7300	\$5499
Screen Size	58"	55"
H. Resolution	1250	1200
HDTV Tuner	Plug-In Card	Set-Top Box
Audio Power	20 watt	10 watt
Speakers	6 1/4"	5" 2-way

Remote

	All Buttons	Some Buttons
BNC Input	1	None
Center Spkr		
Input	1	None
VCR Output	1	None
15-pin RGB	1	None
Color Temp.	5 Settings	3 Settings

Major differences between the PRO-HD710 and the WS-65905:

	PRO-HD710	WS-65905
Price	\$8300	\$6999
Screen Size	64"	65"
H. Resolution	1400	1200
HDTV Tuner	Plug-In Card	Set-Top Box
Audio Power	30 watt	10 watt
Speakers	6 5/6" 2-way	5" 2-way

Remote

	All Buttons	Some Buttons
BNC Input	1	None
Center Spkr		
Input	1	None
VCR Output	1	None
Color Temp.	5 Settings	3 Settings
V-Chip	No	Yes

And, as always, the WS-73905, even by the Elite line is unchallenged.

In comparing the Mitsubishi Diamond Series to Elite, we see a difference throughout the Elite line in their cabinet. Elite offers a high-gloss black cabinet finish, which of all the units surveyed, gives the Mitsubishi Diamond Series its closest competition. The Elite's high-gloss black finish is a nice touch, and the cabinet felt very sturdy and well-made to the touch, but it just cannot match the quality, feel, and look of the superior Mitsubishi Diamond Series cabinet.

You may be saying, "Thanks for the spec sheet information, but how is the picture?" For that comparison, I turned to Reel Time in Dana Point, a Mitsubishi dealer who handles a lot of custom installations in south Orange County. Reel Time sits right on the North-bound side of Pacific Coast Highway just about a mile north of the 5 Freeway/PCH interchange. As you are driving on that north-bound stretch, your attention is grabbed by a bright blue canopy, decorated with a big Mitsubishi logo, and the same large Mitsubishi logo painted on three sides of the delivery truck that they keep parked on the side.

Bob Tucker, to whom I told I was looking for a wedding anniversary gift for my parents from their children, gave a very no-pressure, no-nonsense approach to selling me on a Mitsubishi television. When you walk into Reel Time, the very first thing you see is the large set-up of nine different Mitsubishi big screens on the far wall. To your right, those small, direct views that I wasn't interested in, and to the left, the Sony XBR offerings, and the three Elite offerings. What Bob did that made me so appreciative was that he allowed me to take the time I needed to walk back and forth between the three brands to make the comparison, without

any attempt at comment or favoring on his part. There was one thing, however, that stood out in my mind.

When I stood roughly the same distance from the Elite triumvirate, and the WS-65905 and WS-73905, I could see the difference in picture very clearly. The two brands really had the same brightness, consistent throughout the picture, but it was the Mitsubishi that won out in color definition, truer-to-life contrasts, and above all, an Elite picture that looked like a television picture and a Mitsubishi picture that looked more like looking out of a window.

In talking to Bob after taking my mental notes of the comparison, he made some very good points in an Elite vs. Mitsubishi comparison. According to Bob, bottom line, the Mitsubishi was the clear choice for many of his customers. Bob commented that if he is asked, he states that Mitsubishi has a better picture and above all, makes a better, more reliable television. So, naturally, my next question was, "Who is buying Elite, and why?" Basically, in a round-about answer, Bob told me that what made most people who purchased the Elite go down that path was one of, or both, of two things. The high end customer who is really concerned about impressing their friends, likes the Elite slot-card HDTV tuner as opposed to a set-top box. He said a lot of them commented on how it seemed more "high-tech" than a "cable-box-looking-thing" on top of the television, and a lot of his customers felt it offered more ease of upgrade in the future. Also, to some consumers who were looking to put in an entire entertainment center, the Elite line impressed them by offering a larger line of products, all cosmetically matched, including such items as DVD/CD or DVD/LD Player, Digital DTS A/V Receiver, 300+1, 100+1, six-disc magazine, or single disc CD Player, a CDR/CDRW Recorder, Mini Disc Player/Recorder, dual cassette deck, or cosmetically matched speaker towers and audio racks. A little surprised at these offerings, I asked Bob for a catalog which he shortly produced, and sure enough, all components were cosmetically matched, including speaker towers and audio racks to match the television cabinet, all with the same "Elite" logo right on the front.

So, here we see Pioneer luring away

the high-end customer by offering this Elite name-brand throughout the entire entertainment center. Bob commented that it wasn't really the television's picture so much that won Elite a customer, but more so, this slot-card approach to HDTV tuners and this full-line of other products.

With a higher price tag and inferior picture, in theory of picture quality and a better-made television, Mitsubishi Diamond Series should win out over Elite every time, but we do need to keep an eye on this Elite line to make sure that not too many potential Mitsubishi customers are being lured away with this "slot-card" and complete line offerings.



In viewing RCA units, I felt that they had a nice picture overall, very comparable to a Hitachi picture, but that these units still fell short of the Mitsubishi analog picture, and of course, the Mitsubishi digital picture. RCA offers one of the few challengers to our 45" analog unit and still offers a 52" unit in oak-veneer finish. On the digital side, RCA does not offer any true competition for Mitsubishi.

RCA Analog vs. Mitsubishi Analog

RCA is the first of our competitors in this survey to offer a challenge for our VS-45605 with their 46" P46921. The VS-50605 challenger is the P52921, a 52" inch with the same exact features as the P46921. These RCA units match our 3D Y/C Comb Filter, high-brightness screen, CRT features, audio features, and timer features, and even boasts a higher 900 lines of resolution. Mitsubishi, however, betters RCA with 2-tuner PIP, 64-point convergence, A/V memory, Component video input, and of course, cabinet design. Curiously, the RCA cabinet is actually marketed as having a "boxy" look which allows the customer to place the back panel "flush" against a wall for a "better side appearance." One RCA feature of note, also, is their :30 Commercial Skip. When this feature is activated, the television remembers

the channel you are on, allows you to browse to other channels, but after 30 seconds, returns you automatically to the original channel. As throughout the RCA line, it is my opinion that the Mitsubishi picture wins out in quality, so I feel most consumers would choose the \$1899 VS-45605 over the \$1599 P46921 and the \$2199 VS-50605 over the \$1499 P52921. RCA does also take their intro line a step further and offer this lower-end unit in a 60", the \$2099 P60291.

Moving on to Gold Series competition, RCA offers the P52940, P52945, P56940 and P61940. This series of RCA televisions also boast 900 lines of resolution to our 850, and brings A/V Memory and direct analog external speaker connections into play, but is still lagging behind Mitsubishi's 2-tuner PIP, 64-point convergence, Component video inputs, cabinet design, and above all, overall picture quality.

RCA, however, puts a twist on this line, with the P52945, the same televisions as the P52940, but with an oak-veneer finish, the only manufacturer I found to still make this offering.

Price comparison: VS-50705 is \$2699 vs. the P52940 at \$1799 and the P52945 at \$2099. VS-55705 is \$2999 vs. the P56940 at \$2299. VS-60705 at \$3499 vs. the P61940 at \$2599.

The VS-70705 again goes unchallenged.

RCA Digital 4:3 vs. Mitsubishi 4:3 Digital

RCA has no offerings in this area. The VS-50805 and VS-60805 are unchallenged.

RCA Digital 16:9 vs. Mitsubishi Digital 16:9

RCA really doesn't have a unit that I think would directly compete with Mitsubishi Digital 16:9. It was my opinion in looking at their line that this was just a first-generation offering to die-hard RCA fans and a stepping-stone to a hopeful second generation offering.

Nonetheless, let's take a look. RCA offers a 61" P61300 in a very Philips-looking grey monitor-on-a-stand looking unit. It is not until this digital unit that RCA offers a two-tuner PIP. This unit works with the DTC100 set-top box which uses a proprietary-type connection (the television maxes out at an S-Video input for common standard connections). The only item to really note of this set up is that the DTC100 came on to the market already DIRECTV capable.

With the P61300 at \$7999, the \$6999 WS-65905, which is 4" larger in viewing area, sports a much nicer cabinet and a far superior picture and features, is the clear choice.



In looking at our competition, Sony definitely comes the closest in name recognition, especially as a fellow Japan-based company whose name is recognized for a wide variety of quality products. More importantly, in surveying Sony as a competitor, however, is our recognition of the importance of the so-called "die-hard" consumer. The only "die-hard" fan group that comes close to matching in numbers the die-hard Mitsubishi televisions fan is the die-hard Sony television fans. A returning Sony customer will sometimes buy the Sony product without question of quality or performance, much like our many returning Mitsubishi customers buy the Mitsubishi product on their previous experience and assumption of quality, both groups sometimes not even surveying what the competition has to offer before making their purchase.

So, what are some things that set Mitsubishi apart from Sony in the market? The Sony analog picture does come close to the Mitsubishi picture, in fact, in most analog sizes, it is the closest. Sony cabinets in some classes are the most formidable of our competitors, right along side Pioneer, but in other classes, such as the neo-looking XBR series, offer very little competition. Yet, the Sony XBR is as widely known a term as Elite, or Mitsubishi Diamond Series to the serious television customer, and the television salesperson. I feel the Mitsubishi television is still a cut above the Sony television in the eyes of the consumer, but in some cases, the consumer will take the less expensive Sony because although they are not getting "Mitsubishi quality," they are coming close.

What about digital? Though I will go into further detail in the digital section, Sony digital can be summarized by saying they are a 4:3 digital competitor, and definitely not a digital 16:9 competitor.

An important thing to also note about the Sony televisions, is the "Sony at Your Service"

campaign that is being sold hand-in-hand with the Sony television. All dealers I visited that offered Sony, including the afore-mentioned Reel Time in Dana Point, had at least one cardboard fold-up display that held a bright blue, eye-catching hand-out sheet that reads, "Sony at Your Service, Your Guarantee of Maximum Support." What this ad says to the consumer that is asking themselves the question, "Do I spend a little less money and compromise the Mitsubishi quality for an almost-as-good Sony?" is, if you do make that compromise and come to Sony, we promise to take care of you. Though we boast that we are world renowned for our customer service (a boast that is still close to home with me), Sony is offering you a nice little hand-out that says in writing, "We are going to take care of you." "Toll-Free Personalized Customer Care," "Quick Response At-Home Service," "7-Business Day Repair or Replace Policy," and "Free Gift With Registration" are all boasted on this handout right before you read, "To meet your personal Customer Care Specialist, call 1-800-222-SONY." Basically, this is a much fancier way to say your product comes with a one-year parts and labor warranty, but knowing today's American consumer, this "fancy" way of offering a one-year warranty is helping the consumer compromise down to a Sony.

Sony Analog vs. Mitsubishi Analog

Sony is the second of three competitors (RCA, Sony and Toshiba) which offer a challenger for our VS-45605. A Sony advantage here is that the KP-43T70 offers the compact 4:3 table-top cabinet that we pioneered some years ago, but have removed from our recent product lines. Of particular note is that both Sony and Toshiba have offerings of this cabinet-type. With Sony's now-clear-cut lead in direct view televisions, it is no surprise that the KP-43T70 looks simply like a 43" direct-view television on a little stand when it comes to the cabinet department. What is surprising, however, is the picture quality. For only being 2" less in viewing area than the VS-45605, and a table-top model at that, with 3D Y/C Comb Filter, 2-Tuner, completely moveable PIP, 30 watt audio system, a nice on-screen menu (yes, ours is still better), a built-in high-contrast protective shield, and mostly all the same

connections, this Sony provides very formidable competition. If you need a 45" floor-standing unit, the Mitsubishi will be your choice here, but if you need, or are possibly open to, a table-top design, this \$1799 Sony KP-43T70 (\$100 less than our VS-45605) may be the choice the consumer goes with. Our 64-point digital convergence is definitely a plus on our side when compared to this unit's overall picture.

In the 50" arena, Sony offers their intro 48" KP-48S70, which is 2" smaller and has a very Philips-like looking cabinet (a monitor on a stand look again). This unit is the same as the 43" table-top, just minus the protective shield. Sony's 48" in this category is \$1899 vs. our VS-50605 at \$2199.

Sony goes a step further here with their intro line and offers this same television in a 53" (KP-53S70 at \$2099) and a 61" (KP-61S70 at \$2399).

For Gold Series competition, Sony offers the "V80" series. Sony adds a second component video input to this series and some control features similar to our Active A/V Network. We win out with our V-Chip control features and our 64-point digital convergence. Sony wins out with this additional component input and a 40 watt audio system, plus adds a neat convenience feature, the "Snap Shot" screen freeze, which will freeze a frame of video on the screen through the television's tuner to allow consumers to write down phone numbers and internet addresses broadcast in commercials. Though Sony offers a very classy-looking cabinet, it still does not match our superior cabinet design and look, nor does this series come with a built-in screen protector. Sony offers this series in a 48" (KP-48V80 at \$2199 vs our VS-50705 at \$2699), a 53" (KP-53V80 at \$2399 vs. our VS-55705 at \$2999), and a 61" (KP-61V80 at \$2799 vs. our VS-60705 at \$3499).

Our VS-70705 goes unchallenged by Sony.

Sony Digital 4:3 by Mitsubishi Digital 4:3

Sony offers direct competition for our 4:3 digital units. Sony offers their XBR series with true HDTV 1080i, similar 4:3 screen formats, line-doubler, 5-element hybrid lenses, high-brightness screen, built-in protective shield,

3D Y/C Comb Filter and two component video inputs, one of which offers RGBHV capability. Sony builds on convenience with their "Snap Shot" feature and surpasses our internal audio with an 80 watt Dolby Pro-Logic system, but Mitsubishi wins out with 64-point digital convergence, and a far-surpassing SQV memory (Sony only allows you to memorize 8 channels as favorites).

In picture quality, when comparing the XBR in a similar fashion as the Elite and Mitsubishi at Reel Time, it is plain to see that although Sony does come close to rivaling the Elite picture, the Sony is much closer to the Elite than it is to the Mitsubishi. Mitsubishi wins out with better-defined color and overall picture sharpness and clarity. Cabinet-wise, and of course the opinion of some who have seen the XBR cabinet may differ due to personal taste, I feel that Mitsubishi wins here hands-down. The XBR cabinet has a dual-blend of a metallic-like finish combined with a wood-grain that is dark brown, an although meant as decoration, just creates a contrast I feel is too much to look good.

Sony Digital 4:3 is offered in a 53" size, the KP-53XBR300 at \$4499, and a 61" size, the KP-61XBR300 at \$5499. Though slightly smaller, our 50" and 60" offerings, the VS-50805 at \$3999 and the VS-60805 at \$4499, are a better picture and nicer cabinet at a lower price.

Sony Digital 16:9 vs. Mitsubishi Digital 16:9

With the stern competition that is offered in the analog lines, it was disappointing to see only one Sony Digital 16:9 offering, the 65" KWP-65HD1, and at a price tag of \$11999.99 (yes, \$12000!). The consumer who knows about the WS-65905 or the WS-73905 would be making a grave mistake to take this \$12000 65" unit in a standard grey-finish Sony cabinet over the \$6999 WS-65905, or the \$9999 WS-73905. Sony advantages? The same 80 watt Dolby Pro Logic audio system. Disadvantage being sold as an advantage? This Sony unit comes with a built-in HDTV tuner that will decode NTSC and all 18 ATSC formats. Problem here? What about cable and satellite? Unless Sony plans on sending a technician out to your home to put in new tuners as needed when technology advances,

you are stuck with broadcast until you buy a new unit. Good thing you only paid \$12000 for it, right? Unless they are driven by their "die-hard" Sony feelings and fail to survey the Mitsubishi offerings, I am not sure why a digital 16:9 consumer would pick this Sony unit over one of ours.

This one Sony 16:9 offering leaves the WT-46805, WS-55805, WS-55905, and WS-73905 unchallenged.

TOSHIBA

Toshiba Analog vs. Mitsubishi Analog

Toshiba is the third competitor to offer a challenger in the 45" category, and the second (along with Sony) to offer a table-top model. Toshiba actually offers two table-top units, one to compete with our Silver Series, and one for the Gold Series. The tabletop unit is a very neat twist for Toshiba, but overall, when looking at their analog offerings, Mitsubishi is a clear choice above the Toshiba units.

The competition for the 45" Silver Series is Toshiba's 43" tabletop, the TZ43V61 at \$1699 (vs the \$1899 VS-45605). The competition for the 50" Silver Series is Toshiba's 50" units, the TZ50V51 at \$1799 and the TZ50V61 at \$1999 (vs. the \$2199 VS-50605).

The TZ43V61 matches our 2-tuner PIP, dual RF and high-brightness screen, It also comes with a built-in protective shield. This unit is lacking in picture quality and in features such as convergence and connections. Again, the customer who is looking for a free-standing 45" unit will go with Mitsubishi, but the customer who is looking for a table-top unit will have to go with either Toshiba or Sony.

The competition for our VS-50605 is two separate levels of introductory series 50" units from Toshiba. This first, the "V51" series is a very basic television, with just a plain comb filter, one tuner, and some basic audio features. This unit appears to be marketed as more of a component-video capable monitor. At only \$400 more for the VS-50605, I think the clear choice is the better Mitsubishi unit. The second unit,

the "V61" series TZ50V61 steps up to 2-tuner PIP, but keeps many of the basic audio and video features as the TZ50V51. At just \$200 more, the Mitsubishi VS-50605 is the clear choice.

As with most of our competitors, Toshiba offers these very basic units in larger sizes. The TZ55V61 is offered at \$2199, and the TZ61V61 is offered at \$2599. The only spark of competition that we may see here is the consumer compromising superior Mitsubishi technology to go for the 55" offering as the only Mitsubishi 55" offering is the \$2999 Gold Series VS-55705.

The Gold Series equivalent in Toshiba's line, the "V71" is offered in a 43", a 50", and a 55". The first twist here is the 43". This undercuts in size any of our offerings in a mid-to-high-grade analog unit, and on top of that, it is a tabletop cabinet. The TN43V71, at \$2199, matches our 3D Y/C Comb Filter, but really falls short in convenience features, and above all, overall picture quality.

The 50" Toshiba challenger, the \$2299 TN50V71 is the same unit as the TN43V71, just in a 50" size. No competition picture- and convenience-wise again. At just \$400 more, the VS-50705 is the clear choice here. As for 55", the same features are available on the \$2499 TN55V71, but again, at just a marginal \$500 more, the consumer can get the far-superior picture of the VS-55705.

Though Toshiba makes an intro-level 60", they fail to make a mid- to high-grade analog in that size, leaving both the VS-60705 and VS-70705 unchallenged.

Toshiba Digital 4:3 vs. Mitsubishi Digital 4:3

For Digital 4:3 competition, Toshiba offers three units as opposed to our two units, adding in a 55" size that we do not have a competitor for. Looking at the whole "X81" series, Toshiba offers true HDTV 1080i, 3D Y/C Comb Filter, 5-Element Hybrid Lens, High-Brightness Screen and a Built-In protective screen. Toshiba lacks 64-point digital convergence, and is lacking in cabinet design and quality. Picture-wise Toshiba offers a good picture, but nowhere near the quality of a Mitsubishi Digital picture. Price wise the 50" TN50X81 undercuts our VS-50805 by \$1100 at \$2899, and the 61" TN61X81 undercuts our VS-60805 by \$800.

The 55" TN55X81 is offered at \$3099. If the consumer is looking for HDTV that is not of extremely high quality, but average, and at a lower price, these units may be for them.

Toshiba Digital 16:9 vs. Mitsubishi Digital 16:9

Though not a true challenger to our line, Toshiba offers a free-standing 40" 16:9 true HDTV 1080i 40" unit, the TW40X81 at \$2799. Unless the consumer has a special application for this unit, or is limited to space in their home, I do not think they would be proudly displaying this "mostly-stand, hardly any screen" looking unit.

As a challenge to the 55" units, Toshiba offers the TW56X81 at \$4899, \$400 more than the WS-55805 and \$600 less than the WS-55905. Toshiba meets the true HDTV 1080i with this unit, offers high-brightness screen, built-in protective screen, multi-point digital convergence, front surface mirror, 480p capability, and a 3D Y/C Comb Filter, all in a basic gray cabinet. Mitsubishi picture quality, convenience features, and black matte classic-looking cabinet win out here in the WS-55805 competition, all at \$400 less. The WS-55905 is \$600 more, but for a mere \$600, the customer is getting the better quality Mitsubishi picture, better user interface convenience features and the high gloss black burl finish cabinet.

In the 65" arena, Toshiba offers two challengers. The TW65X81 is a 65" version of the TW56X81 at \$6499. For just \$500 more, the consumer is going to choose the much nicer look and better picture quality of the Mitsubishi.

Toshiba does have a very interesting offering in their 65" DW65X91, which comes with a built-in HDTV decoder, a built-in HDTV DIRECTV Receiver, including DIRECTV DJ11 and Smart Card Slot interfaces and Optical Dolby Digital outputs. This unit is offered at \$8499, but what you are paying for here is the built-in HDTV and DIRECTV plus interfaces. The cabinet design is the same as the TW65X81, and there are no picture-improving features here for the additional \$2000 Toshiba is charging over that unit. Only the consumer who is extremely impressed by the built-in DIRECTV interface will be going purchasing the DW65X91.

Conclusion

Well, there you have it. An in-depth analysis of our major competitors. There are a few bottom lines to point out here. Whether analog or digital, the Mitsubishi picture is by far the best on the consumer electronics television market today. By far, our digital picture is better than any of our competitors'. While some competitors come close, they all finally fall short in the end. There are some novel features, like Sony's Snap Shot freeze frame, that do stand out as interesting features, but overall, the Mitsubishi consumer has the best, more integrated interface with their product. Whether analog or digital, the Mitsubishi television cabinet, for class and quality far wins out over the competition. The Mitsubishi name and reputation is still the most closely associated with quality, durability, and above all, the best in what television offerings are in the market.

As we look forward, we need to closely monitor our competitors, especially as they begin to release their second generation of digital products (of course since they have all purchased our Mitsubishi televisions in an attempt to reverse engineer our quality picture.). Some hot topics out there right now are the VGA port that so many consumers were demanding from Mitsubishi and the "Fire-Wire" IEEE 1394 systems that are in the works. We need to remember that Customer Service is more important than ever to the American consumer today, and quickly realize the benefit of the internet and how a company is perceived by the advanced technology (or lack of technology) of their web site.

In The Next Survey...

In the next survey, I will be taking a look at the long-awaited advancements of our 2001 line and how they are measuring up against our competitors in the market. I will continue to closely monitor the close competitors, and report on the not-so-close. I will also be including some excerpts from some of the news groups on the web to demonstrate how important the information on the web needs to be to Mitsubishi and what a powerful tool the web can be for the consumer to spread both good and bad reviews of our products.