Crossmax sl manual

File Name: Crossmax sl manual.pdf
Size: 2466 KB
Type: PDF, ePub, eBook
Category: Book
Uploaded: 14 May 2019, 21:37 PM
Rating: 4.6/5 from 672 votes.

Book Descriptions:

Crossmax sl manual

Tech Documents. Mavic Crossmax 29 Disc User Manual.Discover our range of wheels, tire, rims and apparel for road cycling, MTB, Triathlon. Keywords Mavic, mavic crossmax, spoke calculator, mavic crossmax slr, mavic slr.Reload to refresh your session. Reload to refresh your session. Whether racing or trail riding, Crossmax SL makes for en even more dynamic ride. Those cartridge bearings are of course double sealed with C3 internal clearance, and toped with a microadjustability system. Tight tolerances for high rolling efficiency Quick adjustment according to performance goals precision free adjustment for maximum fluidity, or perfect high precision setting for allweather rides Zicral Light, stiff and strong A specific aluminum alloy that provides spokes with higher stiffnesstoweight ratio while being stronger. Lighter spokes for easier climbing Stiffer spokes for better energy transmission Stronger spokes for increased durability Maxtal Light and strong Exclusive to Mavic, this specific aluminum alloy offers a higher strength to weight ratio than conventional 6106 alloy. 30% more resistant rims Lighter rims SUP Stronger and smoother joint Soude Usine Process. After bending, the rim joint is arc welded. The welded seam is then milled for a smooth finish. Extremely strong rim joint Eliminates shuddering when braking Superior wheel balance Whether racing or trail riding, Crossmax SL makes for en even more dynamic ride. The welded seam is then milled for a smooth finish. Extremely strong rim joint Eliminates shuddering when braking Superior wheel balance Is this front wheel to fit a Lefty fork Thanks. Not even Julian Clary has more rim history than Mavic and the SSC rims are as fly as youll find. Not even Julian Clary has more rim history than Mavic and the SSC rims are as fly as you'll find. This Vbrake set uses an ultralight composite bodied front hub to drop over 100g from the disc version.http://www.laps.pl/userfiles/franklin-ice-maker-manual.xml

- **mavic crossmax sl manual, mavic crossmax sl ssc manual, crossmax sl manual, crossmax sl manual pdf, crossmax sl manual download, crossmax sl manual transmission, crossmax sl manual 2017.**

Service Manual

Direct Drive Automatic Turntable System

SL-1900 (M, MC)

* The model SL-1900 (M) is available in America only.
* The model SL-1900 (MC) is available in Canada only.

Specifications Specifications are subject to change without notice for further improvement. Weights and dimensions shown are approximate.

General

Power supply	AC 120 V, 50 or 60 Hz
Power Consumption	8W
Dimensions (H x W x D)	13.7 x 43.0 x 33.4 cm (5-3/8 x 16-15/16 x 13-1/8 inches)
Weight	7.2 kg (15.9 lbs.)

Turntable section

Type	Direct Drive Automatic Turntable System, Automatic start, Automatic return, Automatic shut-off, Repeat play with convenient "memo-repeat" knob and Manual play
Drive method	Direct Drive
Motor	Back Electromotive Force Frequency Generator servo DC motor employing one chip IC
Turntable platter	Aluminum die-cast, 31 cm (12-1/8")
Turntable speeds	33-1/3 and 45 r.p.m.
Pitch controls	Individual adjustment controls, 10% ajustment range
Wow and flutter	0.03% W.R.M.S. (JIS C5521) ±0.042% Weighted zero to peak (DIN 45507)
Rumble	−73 dB (DIN 45539B) −60 dB (DIN 45539A)

Tonearm section

Type	Universal tubular arm, static-balanced type
Effective length	230 mm (9-1/16")
Overhang	15 mm (9/12")
Friction	Within 7 mg (horizontally and vertically)
Tracking error angle	Within +3° at the point of 145 mm (5-45/64") from the center Within +1° at the point of 55 mm (2-3/16") from the center
Offset angle	21.5°
Adjustable stylus pressure range	0 to 3 g (stylus pressure direct reading type)
Cartridge weight range	5 to 10 g
Headshell weight	9.5 g

Technics byPanasonic

Panasonic Company Division of Matsushita Electric Corporation of America One Panasonic Way, Secaucus, New Jersey 07094

Matsushita Electric of Hawaii, Inc. 320 Valkamilo Road, Honolulu, Hawaii 96817

Matsushita Electric of Canada Ltd. 40 Ronson Drive, Rexdale, Ontario, Canada M9W 1B5

They’re pretty expensive wheels, and while disc versions are only 17 more a set, they’re quite heavy 1732g Vs 1548g. Were here to help you get the most out of your time on the bike, whether youre a road rider, mountain biker, gravel rider, cycle commuter or anything in between. You can expect the latest news and features, indepth reviews from our expert team of testers, impartial buying advice, howto tips and plenty more.Sign in to manage your newsletter preferences You can unsubscribe at any time. This will automatically being checked at www.starbike.com shopping basket so make sure that you are logged in at the WW board. If there does not appear a WW discount position when you check out you do not have enough postings! No jups or hard freeride. Will these wheels be OK for me, or should I be concerned I have just purchased a BMC fully with a set of Mavic Crossmax SL Disc wheels. No jups or hard freeride. Will these wheels be OK for me, or should I be concerned. Thanks for your help.! M I will give you 2000 kr for them I have used them for a lot of racing without a problem I was 200lb when I started racing. I had more problems with the crossrocks Anybody else have an experience with any BMC products. That might mean beating up on the regulars at your Saturday morning ride or leading the pack through a tough section of trail at a NORBA National. Proven at every level of competitionour 2007 SWorks edition has already won a UCI World Cup. The Epic, with its incredibly efficient Flow Control Brain suspension technology, is the fastest suspension bike in the world. Read all about Total Suspension Integration. Adobe PDF, 3MB. Designed to work only with the TM1 Spoke Tension Meter from Park Tool, the WTA can help you achieve a wheel with consistent spoke tension. It is also useful when diagnosing wheel tension issues or documenting wheel truing results. NOTE The statistics generated by the app are based on a factory calibration of the TM1 Spoke Tension Meter.http://personnelcle.com/userfiles/franklin-industries-fim35-manual.xml

The values given should be used as a general guideline, as actual TM1 readings may vary based on the care, history, and usage of any given meter. Select the appropriate option from Material. There are five options Steel, Aluminum, Spinergy PBO, Titanium, and Carbon Fiber Mavic R2R. Steel Stainless steel spokes can sometimes appear similar in color to aluminum. If in doubt use a magnet. Even stainless steel will at least be weakly magnetic. An aluminum spoke will not be magnetic at all. For steel spokes only the WTA can predict and produce Tension Conversion Tables for spokes not found on the chart included with the tool Aluminum The WTA provides only predetermined Tension Conversion Tables which are the same options as the Tension Conversion Tables that come with the tool. Two chart options are provided. Titanium The WTA provides only predetermined Tension Conversion Tables which are the same options as the Tension Conversion Tables that come with the tool. The is one Tension Conversion Table for this option. Next, select Shape. For steel, titanium, Spinnergy PBO, and aluminum, there are two options Round and Blade. Blade means flat or “aero” shape. Manufacturers will sometimes give dimensional specifications of the spoke. However it is always best to measure spokes directly using a caliper. All measurements should be in millimeters, rounded to the nearest tenth. For decimal measurement, use a “dot,” not a comma to designate tenths. In other words, use “1.8” instead of “1,8”. For round steel spokes, the diameter is referred to as Thickness. Always measure spoke thickness diameter near the center, approximately halfway between the rim and hub. Spokes may be butted or thicker at the ends. The TM1 will be deflecting in the middle section, so measure diameters in the middle. For steel bladed spokes, you can enter unique numbers for both the Thickness and the Width. The thickness is the thinner part of the spoke, and width is the wider section figure 2.

Titanium, aluminum, Spinergy, and Carbon Fiber Mavic R2R spokes are limited to preset options and you cannot enter any other dimensions. The WTA produces a TM1 CONVERSION TABLE for the spoke data entered figure 3. These are deflection readings off the TM1 scale and their corresponding spoke tension in Kilograms Force to that particular spoke. Conversion tables for steel spokes are calculated based on measurements given by the user, and should be considered approximations of spoke tension. While the printed table represents actual data from the spokes listed, the WTA tables compress and round the data to make it useful for an infinite number of steel spokes. Nonsteel spokes do not show this approximation and represent the calibration data as it was taken. However, for steel spokes the WTA can predict tension charts for steel spokes not listed on the Conversion Table. This is a very useful feature because there are simply too many bladed options to list on a printed table. If you are only looking for a rough idea of this spoke’s TM1 readings and values, you can stop here. Use this table the same as you would one of the columns on the printed TM1 Conversion Table that comes with the tool. The WTA features an optional WHEEL TENSION

BALANCING function to visualize and document the relative tension between spokes. Begin by entering the number of spokes on the left side of the hub flange. Then enter the number of spokes on the right side. The WTA will produce entry fields for TM1 readings. Converting your TM1 reading to corresponding Kgf values will be done by the WTA. When taking TM1 measurements, use the rim valve hole as a consistent point of reference. Move to the right clockwise as your measure. This can be removed after the work by solvents such as acetone or even rubbing alcohol. Alternatively you can use tape or just count the spokes from the valve each time. Round the deflection readings to the nearest half — it is not realistic to try to be more precise.

ORDER NO.AD0104108A2

Service Manual

Turntable System

SL-1210M3D

Colour

(K).....Black Type

Areas

(E).....Europe.

(EB).....Great Britain.

(EG).....Germany and Italy.

Please file and use this manual together with the service manual for Model No.SL-1200M3D(P)(Silver Type), Order No.AD9903091C1.

Specifications

●General

Power supply:	AC 110–120/220–240V, 50Hz
Power consumption:	16W
Dimensions (W×H×D):	453×162×353 mm
Mass:	10kg

●Turntable section

Type:	Quartz direct drive Manual turntable
Drive method:	Direct drive
Motor:	Brushless DC motor
Turntable platter:	Aluminum diecast Diameter 332 mm Weight 1.7 kg
Turntable speeds:	33-1/3 r/min, 45 r/min
Starting torque:	1.5 kg•cm
Build-up characteristics:	0.7s. from standstill to 33-1/3 r/min
Braking system:	Electronic brake
Wow and flutter:	0.01% W.R.M.S.* (JIS C5521) ±0.035% peak (IEC 98A Weighted)

*This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter. Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble:	-66 dB (IEC 98A Unweighted) -78 dB (IEC 98A Weighted)

●Tonearm section

Type:	Universal
Effective length:	230 mm
Arm height adjustment range:	0-6 mm
Overhang:	15 mm
Effective mass:	12 g (without cartridge)
Offset angle:	22°
Friction:	Less than 7mg (lateral, vertical)
Tracking error angle:	Within 2°32' (at the outer groove of 30cm record) Within 0°32' (at the inner groove of 30cm record)
Stylus pressure adjustment range:	0-4 g
Applicable cartridge weight range:	3.0–13 g 11-20.5 g (including headshell)
(with auxiliary weight):	9.5–13 g 17-20.5 g (including headshell)
(with shell weight):	3.0–6.5 g 11-14 g (including headshell)
Headshell weight:	7.5 g

Notes:
Specifications are subject to change without notice.
Mass and dimensions are approximate.

As an example, you might have a 19, a 19.5, or a 20 deflection reading, but not a “19.23.” Units will automatically be rounded to the nearest 0.5 when you submit the form. Use the TAB key on computer rather than ENTER to move to the spoke next field. Using ENTER will refresh the screen and process the fields each time, slowing your work. Enter all spokes from one side in the entry fields and then hit ENTER to generate all kgf values for the entry fields. The WTA also produces a visual of radially graphic spoke tension values, called a radar chart. Left side spokes appear in blue and right side spokes appear orange in the diagram.Spoke 2 is called out when mouse hovers over data point. It is normal to see radar charts with some anomalies in the shape, looking like “peaks and valleys.” This does not necessarily indicate an unacceptable wheel. The radar chart does not show the trueness or rim runout, it is only showing the relative spoke tension between spokes. There is an option on the WTA called Variance, which is useful when balancing tension between spokes. Variance refers to the plus or minus tolerance desired in the relative spoke tension. By default it is set to a plus or minus 20% of the average tension. However the mechanic may choose 15%, 10%, or 5% for tighter tolerance balancing work. Spokes outside of the variance range are identified with an icon on the WTA spreadsheet. A check mark will appear indicating a spoke is within the selected variance, while an exclamation mark indicates it is out of variance figure 6. This can simply be ignored by the user if desired. In the example below, the average tension of left side spokes is 60

kgf, and the right side average is 107 kgf. Standard Deviation of Tension The standard deviation is the amount of variation from the average. A relatively low number means spoke tensions are all relatively close to the average.

http://www.gongoff.com/images/compaq-evo-n410c-service-manual.pdf


Service Manual

QUARTZ Direct Drive
Automatic Turntable System

Turntable System
SL-MA1

1134

SPECIFICATIONS

Technics

A high standard deviation indicates that spoke tensions are scattered over a relatively large range of values. In the example here, the right side spokes are more closely balanced relative to one another compared to the set of left side spokes. Upper Tension Limit kgf The WTA determines the maximum kgf value that is would satisfy the selected variance. For the example, left side spokes above a 72 Kgf reading would exceed the selected a 20% variance. TM1 Reading at % Limit This is the TM1 deflection reading corresponding to the kgf value of the upper tension variance limit. For the example wheel, spokes reading above a 16 on the TM1 scale would be above the selected 20% variance. This simply helps to speed the balancing process. Lower Tension Limit kgf The minimum kgf value that is acceptable based on the selected tolerance. TM1 Reading at % Limit The TM1 deflection reading corresponding to the kgf value of the lower tension variance selected. The concept of tension balancing is to change and adjust tension between same side spokes so they are relatively close to the same tension. Left side spokes are balanced to other left side spokes. Right side spokes are adjusted to balance to right side spokes. However this should be done so the wheel maintains the same runout trueness. In balancing it is important to understand that each spoke controls a section of rim, and also shares a “zone of influence” with neighboring spokes pulling on the same side. By balancing, the wheel will generally stay true longer. If spokes vary widely in tension, even if the wheel is spinning straight, with time and use the rim will loose its true. Loose spoke will tend to get looser, and this can be minimized by balancing the tension. Balancing tension will also maximize spoke life. Figure 8 below is an example of a rear wheel that spins straight and

true. Expect there to be a tradeoff between a perfectly tension balanced wheel and a perfectly straight wheel.

https://www.accessoriperdisabili.com/images/compaq-evo-n180-manual.pdf

Enter these in the appropriate entry field and use the UPDATE button to see the results. PRINT WHEELSET DATA At your option, you can enter data such a user name, rim model, spoke type, hub model, front or rear wheel as well as general notes you consider useful in the fields under PRINT WHEELSET DATA. This will be saved as notes that appear at the top of the WTA for this wheel. figure 9. This creates a unique URL in the web browser's address field. Bookmark this page at your option. The link may also be emailed. However, anyone with the URL may change the data as entered for this wheel. It is important to note the WTA only saves online wheel data for one year before it is deleted. Should you want to save this for longer than one year, use the PRINT button and then save as a PDF. It will then be necessary to reenter the data. Should you wish to share that data but not allow changes, also send as a PDF by using the PRINT button. NOTE Saving and noting the unique URL is the responsibility of the user. Park Tool Company cannot retrieve any data from wheels saved using the WTA. The SAVE DUPLICATE button creates a different and unique URL but will keep all the data as entered. This is useful if you are servicing a wheel with the same settings, or if you want to compare a wheel over time, say for example after a much hard riding or after a crash. However, it is not necessary to have all sameside spokes tensioned to exactly the same reading in order to produce an excellent wheel. The rim hoop may have a certain amount of tension from being rolled and joined, or simply may not be perfectly round and flat. Both of these are common issues which prevent a wheel from being perfectly balanced and true. Do not expect a perfect circle on the graph, each same spoke with the exact same tension. The Wheel Tension App can also be useful in diagnosing and explaining wheel problems.

When the wheel has a lateral bend in the rim, it is common to see the left and right side lines cross one another figure 9. When a wheel has a "flat spot" from a bent rim, the spokes will be lower in tension figure 8. Spokes as a rule are capable of handling more tension than the rim. This is why you do not see "spoke tension" specification for the spokes alone. Manufacturers of rims have set tension recommendations from as low as 80 Kilograms Force to as high as 230 Kilograms force. Generally, the heavier and stronger the rim, the more tension it can handle. A light rim may weigh from 280 grams to 350 grams, while a heavy rim may weigh 450 grams or more. Additionally, rim eyelets may help distribute the load on the rim wall. A lack of eyelets on a light rim may imply that less spoke tension is required. Always consult the rim manufacture for the most uptodate specifications. Note that manufacturers give specifications for wheels without accounting for tires. Tire pressure effectively lowers the wheel tension, however do not try to account for this drop by adding more

tension than recommended by the manufacturer. The rim manufacturers determine the amount of spoke pulling force in either Kilograms force Kgf or in Newtons N. The mechanic can roughly convert between Kgf and N using a factor of ten. For example, a rim specification of 1100N is approximately 110 Kgf. A more accurate conversion is to use a factor of 9.8, but for quick estimates a factor of ten is sufficiently precise. Below are rim specifications from select manufacturers. Always check with the manufacturer for the most up to date specifications. Aluminum Rear Axle Tubular Intended Use. Mountain Wheel Size Thanks a lot for your time and interest Feel free to call or WhatsApp me Din 0135315121. By continuing to use this website, you agree to the use of cookies. For more information clickTo see your configuration click here. To see your configuration click here. Your configuration is not saved.

https://www.icodar.com/wp-content/plugins/formcraft/file-upload/server/content/files/16287d76c18981---call-actionperformed-manually.pdf

If you want to buy a customized bike, click here.Or do you want to proceed with the purchase of the standard model Thanks to their GORETEX membrane, they are wind and waterproof. Moreover, the ENERGY GRIP TERRA outsole with CONTRAGRIP offers high comfort and a secure grip even on muddy ground. Also suitable for indoor trainers in fitness studios etc. Manufacturers ref. 378825 Weight approx. 480 g for size 41 MAVIC shoes come in UK sizes, please see the size chart for more information. GORETEX Everybody knows it and everybody appreciates it. The GORETEX membrane with its threelayer technology is a true classic for outdoor textiles, as it is water and windproof. Its optimized breathability and its low material weight ensure an especially high comfort. This robust membrane even provides reliable protection in heavy rain and wind. ERGO DIAL An extremely lightweight retention system for a fast and accurate adjustment to the individual width. This dial closure system allows for easy adjustment even while riding. ERGO FIT 3D ORTHOLITE Made from breathable, lightweight and antibacterially treated ORTHOLITE foam and with an ergonomic shape, this insole offers excellent foot support and especially high stability. ENERGY GRIP TERRA Sole made of fibreglass and nylon for best energy transfer and a secure grip. CONTRAGRIP The specially designed tread always offers best traction on the trail. Whether dry ground, mud or snow this tread ensures a secure grip. ROSE recommends ordering the shoes one size up. Nur sehr schmal und nur was fur schlanke Fusse.Aber bei null Grad nicht uber 40 km gefahren. Fahre Sie auf SPDPedalen musste dafur aber unter den Schuhen mehr Platz schaffen.Kann man schnell aus und anziehen, als Pendler ein tolle EigenschaftWe apologize for any inconvenience. All rights reserved. ALTERA, ARRIA, CYCLONE, HARDCOPY, MAX, MEGACO RE, NIOS, QUARTUS and STRATIX word s and logos are trademarks of Altera Corpor ation and registered in the U.S.

www.csnjl.com/userfiles/files/carrier-edge-thermostat-installation-manual.pdf

Patent and Trademark Office and in other countries. Alte ra assumes no responsibility or liability ar ising out of the application or use of any i nformation, product, or service described herein except as expr essly agreed to in writing by Altera. Alter a cust omers are advis ed to obta in the latest v ersion of device s pecificat ions before relying on any published information and before plac ing orders for prod ucts or serv ices. July 2012 Altera Corporation DSP De velopment Kit, Stratix V Edition Reference Manual ISO 90012008 Registered. General Description The DSP Development Kit, Stratix V Editi on pr ovides a har dware platfor m for developing and prototyping highperformance and highbandwid th application designs. The boar d pr ovides a wide range of peripherals and me mory interfaces to facilitate the development of Stratix V DSP designs.Design advancements and innovations, such as the PCI Expr ess har d IP implementation, partial reconfiguration, and programmable power technology ensure that designs implemented in the St ratix V DSPs operate faster, with lower power than in previous FPGA famili es.I no!U4 CPLD 5M2210ZF256C4, 256pin BGA. Configuration, Status, and Setup Elements J10 JT AG he ader Provides access to the JT AG chain by using an extern al USBBlaster cable disables the on board USBBlaster II. J7 OnBoard

USBBlaster II MicroUSB 2.0 conne ctor for programming and debugging the FPGA. SW3 JT AG DIP switch Enables and disables devices in the JT AG chain. This switch is located on the back of the board. SW5 Board settings DIP switch Controls the MAX V CPLD System Controller functions such as clock select, clock enable, factory or user des ign load from flash and FACTORY signal command sent at power up. This switch is located at the bottom of the board. This switch is located at the back of the boa rd. S3 Program select push button T oggles the program LEDs which selects the program image that loads from flash memory to the FPGA.

S2 Program load push button Configures the FPGA from flash memor y image based on the prog ram LEDs. D4, D5, D6 Program LEDs Illuminates to show the LED sequence that determines which flash memory image loads to the F PGA when you press the program load push button. D17 Configuration done LED Illuminates when the FPGA is configured. D15 Load LED Illuminates during FPGA configuration. D16 Error LED Illuminates when the FPGA configuration from flash fails. D24 Power LED Illuminates when 5V power is present. The TX and RX LEDs would flicker if the link is in use and active. The LEDs are either off when not in use or on when in use but idle. The LEDs are either off when not in use or on when in us e but idle. D29, D30, D31, D32 Ethernet LEDs Indicate the connection speed as well as transmit or receive activity. D3, D13 HSMC port A LEDs Y ou can configure these LEDs to indicate transmit or receive activity. D1 HSMC port A Present LED Illuminates when a daughtercard is plugged into the HSMC port A. D11, D14 HSMC port B LEDs Y ou can configure these LEDs to indicate transmit or receive activity. D35, D36, D37 PCI Express Link LEDs Y ou can configure these LEDs to display the PCI Express link width x1, x4, x8. U38 Quadoutput oscillator Programmable oscillator with default frequencies of 100 MHz, 156.25 MHz, 625 MHz, and 2 70 MHz. U46 Quadoutput oscillator Programmable oscillator with default frequencies of 125 MHz, 644.53125 MHz, 282.5 MHz, a nd 125 MHz. X6 148.5 M oscillator 148.500MHz voltage controlled cr ystal oscillator for SDI video. This oscillator is programmable to any frequency between 20810 MHz. J13, J14 Clock input SMAs Drives L VPECLco mpatible clock inputs into the clock multiplexer buffer. U4 100 M oscillator 100MHz crystal oscillator for the MAX V CPLD System Controller. General User Input and Output D7D10, D18D21 User LEDs Eight bicolor LEDs green and red for 16 user LEDs. Illuminates when driven low. SW1 User DIP switch Octal user DIP switches.

When the switch is ON, a log ic 0 is selected. S1 MAX V reset push button The default reset for the MAX V CPLD System Controller. S4 CPU reset push button Th e default reset for the FPGA logic. S5, S6, S7 General user push buttons Three user push buttons. Driven low when pressed. Memory Devices U12, U17, U21, U23, U28 DDR3 x72 A 1152Mbyte DDR3 SDRAM with a 72bit data bus. The 72bit data bus consists of four x16 devices and one x8 device with a single address or command bus. The device has a separate 18bit read and 18bit write port with DDR signalling at up to 550 MHz. U20 RLDRAM II x18 A 72Mbyte CIO RLDRAM II with a 18bit data bus. The 18bit data bus consists of a single x18 device with a single address or comma nd bus. U10, U11 Flash x32 T wo 512Mbyte synchronous flash devices with a 16bit data buses for nonvolatile memor y. The board supports two flash devices of 16bit inter face each, which combine to allow for 1Gbyte synchronous flash with a 32bit data bus. Communication Ports J18 PCI Express edge connector Made of goldplated edge fingers for up to 8 signaling in either Gen1, Gen2, or Gen3 mode. J12 QSFP conne ctor Provides four transceiver channels for a 40G QSFP module. J1 HSMC port A Provides eight transceiver channels and 84 CMOS or 17 L VDS channels per the HSMC specification. Video and Display Ports J16, J17 SDI video port T wo 75.J4 DC input jack Accepts a 19V DC power supply.Configuration This section describe s the FPGA, flash memory, and MAX V CPLD System Controller device programming methods that the DS P Development Kit, Stratix V Edition supports. FPGA Programming over OnBoard USBBlaster II The onboard USBBlaster II is implemente d using a micr oUSB typeB connector J7, a USB 2.0 PHY device, and an Alt era MAX II CPLD EPM570 GM100 U14. This allows the configuration of the FPGA us ing a USB cable which connects di rectly betw een the USB port on

the boar d J7 and a USB por t on a PC running the Quartus II softwar e.

The onboard USBBlaster II normally masters the JT AG chain.Push al l the switches in the ON position to only have the FPGA in the chain. System Console USB Interface The System Console USB interfac e is a fast parallel interface. T ogether with the soft logic supplied by Al tera, this interface provides a system consol e master for debu g access.Flash Programming Flash programming is possible through a variety of methods using the Stratix V GS device. The first method is to use the factory desi gn called the Board Update Portal. This design is an embedded webserver, which serves the Boar d Update Portal web page.The PFL megafunctio n is a block of logic that is prog rammed into an Altera programmable logic device FPGA or CPLD. The PFL functions as a utility for writing to a compatible fl ash device. This pr ebuilt design contains the PFL megafunction that a llows you t o write either page 0, page 1, or other ar eas of flash over the USB interface using the Quartus II software. Use this method to restor e the development board to its factory def ault settings. Other methods to program the flash can be used as well, including the Nios II processor.FPGA Programming from Flash Memory On either powerup or by pr essing the program load push button S2, the MAX V CPLD System Controller ’s para llel flash loader configures the FPGA from the flash memory. The system controller us es th e Altera Parallel Flash Load er PFL megafunction whic h read s 32bit data from t h e flash memory and converts it to fast passive parallel FPP format. This 32bit data is then written to the dedicated configuration pins in the FP GA during configuration. There ar e three pages reserved for the FPGA configuration da ta—factory hardwar e page 0, user hardwar e 1 page 1, and user hardwar e 2 page 2.

FPGA Programming over External USBBlaster The JT AG programming header provides an other method for config uring the FP GA U15 using an external USB Blaster device with the Quartus II Pr ogrammer running on a PC. Status Elements The development boar d includes boardspecific status LEDs and switches for enabling and configuring various featu res on the boar d, as well as a 16 character 2 line LCD for displaying board power and temperature measur ements. This section describes these status elements. Status LEDs S u r f a c e m o u n t L E D s i nd i c a t e t h e v a r i o u s s t a t u s o f t h e b o a r d. Illuminates when the MAX V CPLD System Controller is actively configuring the FPGA. Driven by the MAX V CPLD System Controller. Illuminates when the MAX V CPLD System Controller fails to configure the FPGA. Illuminates when the FPGA is succ essfully configured. Driven by the MAX V CPLD Syst em Controller. Blinks to indicate Ethernet PHY transmit activity. Driven by the Mar vell 88E1111 PHY. Blinks to indicate Ethernet PHY receive activity. Illuminates to indicate Ethernet linked at 100 Mbps connection speed Driven by the Marvell 88E1111 PHY. Illuminates to indicate Ethernet linked at 1000 Mbps connection speed. Drive n by the Mar vell 88E1111 PHY. Illuminates when the HSMC port A has a board or cable pluggedin such that pin 160 becomes grounded. Driven by the addin card. Illuminates when the HSMC port B has a board or cable pluggedin such that pin 160 becomes grounded. Setup Elements The development boar d includes several differ ent kinds of setup elements. D12 TEMP OVERTEMPn Red LED. Illuminates when a heat sink or fan should be installed. Driven by the MAX1619 thermal sensor OVERTEMPn signal. BoardSpecific LEDs Component References and Manufacturing Information Board Reference Description Manufacturer Manufacturer Part Number Manufacturer Website D1, D2, D4D 6, D15, D17, D29D32 Green LEDs Lumex Inc. SMLLX1206GCTR www.lumex.com D16 Red LED Lumex Inc.

SMLLX1206USBCTR www.lumex.c om D24 Blue LED Lumex Inc. OFF Programmable oscillator input clock select default 100 MHz. OFF OnBoard oscillator disabled. ON. JT AG Control DIP Switch The JT AG control DIP switch SW3 provides you an option to either remove or include devices in the active JT AG chain. Ho wever, the Stratix V GS device is always in the JT AG chain. OFF Load factory design from flash at power up. OFF Send F ACTORY command at power up. OFF MAX V CPLD System Controller inchain. OFF PCI Express edge connector is the chain master. This push button is

the default logic reset for the CPLD logic. Th e pu s h b u t to n fo rc es a rec o nf igurat ion of the FPGA from flash memory. T h i s p us h bu t to n is the default logic r eset for the FPGA logic. The MAX V System Contr oller also drives this push button d uring POR. When you enable the signal in the Quartus II softwar e, and then pulled high on the board, this push button rese ts every r egister within the FPGA with a low signal.Can also support 2x L VTTL inputs. Can also support 2x L VTTL inputs. Can also support 2x CMOS outputs. Ca n also support 2x CMOS outputs. Can a lso support 2x CMOS outputs. Boar d references S5, S6, and S7 are push buttons that allow yo u to interact with the Stratix V GS device. When you pre ss and hold down the push button, the device pin is set to logic 0; when you release the push button, the device pin is set to logic 1. There is no boar dspecific function for these general user push buttons. ECS35 251000BTR www.ecsxtal.com X3 50 MHz 1.8V oscillator ECS, Inc. User Defined DIP Switches Board r eference SW1 is an 8pin DIP switch. The switches ar e userdefined, and ar e for additional FPGA input control. Ther e is no boardspecific function for these switches. When the switch is in the CLOSED or ON position, a logic 0 is selected. This section describes all userdefined LEDs.