

MILDEF CRETE

Corporate Newsletter



Mildef Crete is a thumb up good company

By Mildef Crete Retail Channel Division, Gary Hu

From a financial point of view, a good company must have two important indicators: high gross profit margin and high cash flow ratio. The business unit of MilDef Crete creates high gross profit margins from rugged computers business, while the channel business creates high cash flow ratio, the two sides have their own functions and complement each other.

Over the years, MilDef Crete's rugged computers have accumulated a lot of technical assets and service quality. From a competitiveness point of view, it has become a technical obstacle, making it difficult for competitors to enter. After 20 years of competition, the channel business has long been the Taiwan's largest notebook chain specialist, not only profit and performance continue to grow year after year, but also set a barrier for others to compete with.

It is a grateful thing that all employees can share the company success and finally retire at MilDef Crete which is an outstanding company to all. IN THIS ISSUE

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- MODEL RS13

CNC Experts – Flexbasis
3D Printer FORMLABS FORM2
MilDef Global Technical Training
RoHS 2.0 Regulation Update
ERP system optimization
System software upgrade

Employee Activities









New Business Initiative

MilDef Crete's rugged computers are mainly sold through partners in the US, the UK, Germany, Sweden, Russia, Australia and the US military market. Moreover, Mildef Crete continue to seek growth in mining industry. Australia market high-standard work rugged computer requirements, it has set the light for MilDef Crete's products to enter this market.

Tong, the city councilor serving the Australian city government visited MilDef Crete in February this year. She introduced the advantages of the rugged computers, visited the assembly line..., etc. and contacted the local mining equipment supplier in Australia after fully understanding the products of MilDef Crete. One of the supplier was the purchasing director of the WESFARMER Group. He happened to be the basketball partner of the vice president (Nelson Chou) when they were in school, then he assisted us to contact the largest Australian mining supplier BLACKWOODS. Thanks to this, MilDef Crete is actively applying its 20-year professional application in design to face the harsh underground environment of the mining industry, hoping to promote the successful entry of MilDef Crete's products into the mining market.

At the same time, the Phoneinc (founded in 2000), focusing on providing related equipment and services for mobile communication services. The main business is to provide comprehensive contracts with local government departments and companies in Australia, including E-waste recycling services. Andrew, the founder of Phoneinc, reached a consensus with MilDef Crete after visiting MilDef Crete at the end of 2018 and became a partner to promote our products to other customers in Australia (the demo machine was ordered after the visit). Andrew believes that there is an opportunity to recommend to the fire brigade and police cars in remote areas of Australia to use MilDef Crete's products in upcoming years due to weather conditions in Australia as forest fires have been frequently reported.



Grateful To Have You

The Swedish partner who accompanied MilDef Crete for 20 years, this year, brought us a "2018 Partner of the Year Award".

The trophy is engraved by CNC, painted with green paint with the characteristics of Crete's products, also with an industrial connector on it.

Thanks to the exquisite trophy, it shows the close relationship between MilDef Crete and all our partners.

Grateful to have you.



Retired Testimony

By Nanco (former R&D VP)



In March 1990, I was young and full of ideals young man and hopes to join MilDef Crete's first year of development. In a blink of an eye, I have retired from R&D on September 30, 2018.

It is not easy to witness the establishment of a company during career. In the ups and downs of the company's business performance, I deeply understand that the business is a long-term, unpredictable process. I don't know how long it will take, and I don't know how many obstacles to overcome to make success, how many difficulties I will encounter, how much loneliness to endure. I am grateful to the management team for their continuous guidance during my career and for giving me the space and opportunities for my strengths. These experiences have made my career a great success. Mildef Crete is a very good company, both the company system and the working environment are perfect, it is indeed small but complete.

I would like to wish my colleagues in the work to continue to carry forward, to be proud of being an employee of MilDef Crete.









Year-end Party

MilDef Crete's year-end party was held at the Fu-long Hotel in Shenkeng, we have also invited suppliers and other manufacturers to join us. After the humorous speech of the chairman, rewarding 10 years of senior staff, followed by lottery games, various activities and delectable dishes, letting the company colleagues have a great night event, we sincerely hope that our chairman will continue to lead Mildef Crete team of hard-working employees to achieve new goals.

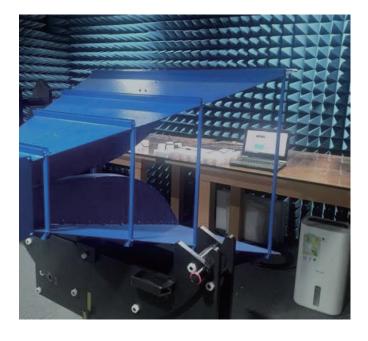


NEW Product Launch RS13

Q2 2019 we released a new product, RS13. This 2nd generation RS series laptop combine amazing performance, security, flexibility and durability. Experience the fast 7th generation Intel® Core $^{\text{TM}}$ i7 processor and various customization features to fit any workflow – all engineered into a thinner and more durable design.

There's no doubt The MilDef rugged Laptop are the best. We have the best engineers dedicated to finding solutions to various problems. From sunlight readability, thermal heat dissipation, power management and mechanical design to unique technologies such as night vision and critical EMI Test & IP Test...etc, MilDef has you covered.





Rugged and Durable

RS13 also passed series tough standards of MIL-STD-810 including shock, vibration, humidity, high/low temperature, etc. The operating temperature range could be extended to -30~60°C. Over 90% parts can operate under -40~85°C. All components are design and select carefully. For example, the Fischer connectors for rear side I/O options could bear up to 10,000 mating cycles. It's certainly ready to serve in the harshest environment.

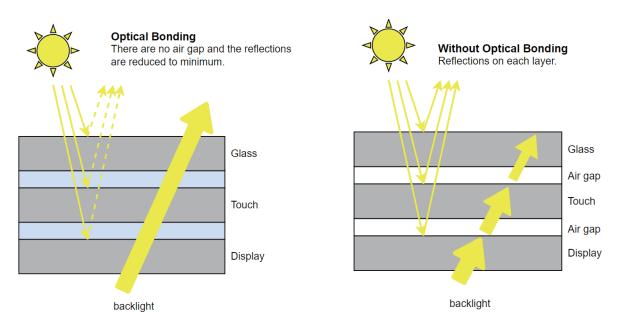




High Display Quality

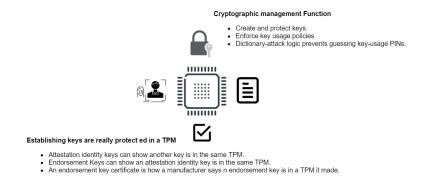
Resolution of RS13 is 1920×1080, making the text easier to read and the images sharp. Special optical bonding treatment makes the screen stronger, sunlight readable, anti-reflective, and give better contrast ratio.

As RS11, RS13 also provide the optional capacitive touch panel.



Security

RS13 provide TPM2.0 as an advanced security option. This cryptographic technology enhances computer security and privacy. It protects your data by encryption and decryption, protecting authentication credentials and proving which software is running on a system.



Customize RS13 with TM team

RS13 reserve many signals for customized functions, such as NV, Fingerpritnt, crypto module, etc. You also could customize the specific BIOS for intended functions. Please inquire our TM team for further discussion.



Compare to RS11

Core components of RS13 are all upgraded (including Intel's Kabylake CPU, and DDR4 ram) so the performance will be enhanced significantly. Other renewed components include new design case, more stable and simplified keyboard and optional modules (WiFi, GPS and TPM follow newer protocol; BVA which saves more power).

	RS11	RS13
Platform	Intel® Ivy Bridge	Intel® Kaby Lake U
Processor	Intel® i7-3517UE 1.7 GHz up to 2.8 GHz	Intel® i7-7600U 2.8 GHz up to 3.90 GHz
Memory	DDR3 1600 SO-DIMM x 1 Up to 8GB	DDR4 2133 SO-DIMM x 1 Up to 16GB
TPM Module	TPM 1.2	TPM2.0
Battery Run Time	6040mAH/ 11.1Vdc/ 67Wh Battery Run Time: 412.5min	6040mAH/ 11.1Vdc/ 67Wh Battery Run Time:512min
Burn-In core temperature	94°C	84°C
Performance (3D_MARK06)	4534	8292

New Product plan

Following DE13 (Released in Q4 2018), RS13 is our 2nd products used Intel 7th generation CPU. In the future, tablet DS13, DT13, DR13 laptop RV13 will be released one after another. 14 series's first product, mobile workstation, RW14 is also in progress. We keep implement new technology to create higher added value for our products such like AES256, ECC, NVME, U.2, RAID, etc. At the same time, we use the highest standard to examine every single product from the development step to mass production. Besides various internal tests done by our experienced test team, we also have certifications from credible organizations.



CNC Experts - Flexbasis (Xunzhi)

- ★ Established in 2017.
- ★ Headquartered in Taipei, Taiwan.
- ★ Number of CNC machines: 8 sets.
- ★ Number of employees: 18 people.
 - *Industry-University Cooperation ×4
- ★ Monthly capacity: >1000pcs
- ★ 2018 / Oct. has passed ISO9001 quality management system certification.











Goals and prospects

Based on MilDef's next-generation models, the [All-Aluminum Unibody] design pioneered by the military industrial control industry, combined with Flexbasis [Flexible Manufacturing Process] and [Solid CNC process foundation], providing the highest level of technical service.

- **★** Perfectly manufactured metal products by Unibody.
- ★ Enter the vehicle, aerospace industry supply chain.
- ★ Become a company that provides complete metalworking solutions services / Group



Products

CNC standard precision components.

CNC custom precision components.

CNC laptop / tablet / hand-held computer case / chassis manufacturing and processing.



Rugged
Handheld PC
housing















Rugged Notebook housing



CustomizedParts



Products



Parts

for

Car



3D Printer FORMLABS FORM2

Mildef Crete start using 3D print technology at the beginning of 2019. The FORMLABS FORM2 printer we purchased can quickly make samples for verifying at the development stage of our product. 3D printing is the progress of the printer keeps adding material to forming and curing. 3D printer is a industrial robot. FDM (Fused Deposition Modeling) is one type of 3D priting technic which using filament to meltand deposit material to produce parts.



SLA (Stereolithography)

SLA makes resin become solid by photochemical processe. SLA products have best resolution, highest accuracy and most smooth surface among all 3D printing tech. Another advantage of SLA is material adaptability, resin with different formula can fit optical, mechanical and thermal requirement of various standard.

SLS (Selective Laser Sintering)

SLS is one of the most common industrial manufacturing process. SLS 3D printer use high power laser to melt polymer into powder. Those unmelted powder will hold the object so support structure is unnecessary.

FORMLABS

FORMLABS is a company base on MIT Media Lab, it was founded at Massachusetts Somerville at 2011. Through research of Form 1, Form 1+ formlabs has become the leading brand in SLA printing field. (over 400 employee)

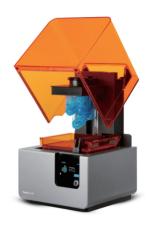


FORM2 formation

SLA (Stereolithography)

Using high power laser reflection by prism to form by 140 microns points during the procedure the auto heating system will keep resin stable.





Redesign 3D printing procedure, let you focus on creating from the beging to end.

Step1: Design

Design with CAD application and transmit STL or OBJ to printer application then finshed setting by a click.



Step2: Printing

Send the file by WiFi and control printing order by touchscreen.



Step 3: Processing

Simplify by Form Wash and Form Cure, then auto print Form 2 to get optimization result.



3D print case







Energy Saving Eco-Friendly

What have Mildef Crete done for environment protection? We keep improve factory environment. 9 years ago (2010) all our lamp in factory change from T8 to T5 which is more power saving. Also, the amount of papers used for documents are reducing. All production waste (discard parts, package...) are separate and process properly.

For example, package of LCD including plastic bag, EPE, fiberboard and carton. package of Magnesium alloy including EPE, fiberboard and carton. The parts could not be use like plastic bag and fiberboard will be recycling, as for EPE and carton, we will keep it for shiping or other usage.

We will send a check list about ISO14001 to all our vendor to help them realize our requirements.

致協力廠商:
**** 本表單為本公司宣導 ISO 14001 環境政策及相關作業規定, 請閱讀下列內容後簽 回本公司,謝謝能均合作 ***

(環境政策)

- 一、 遵循環保法規與實徽污染預防
- 二、 善盡節能減廢與環境保護之責
- 三、 孩實減少不良品對環境的衝擊
- 四、 加強消防管理與防災觀念
- 五、 持續改善塑造優質的工作環境

宣導環保觀念,改善廠區環境,提供員工良好的作業環境,並提供擁富的資訊與教育訓練,使員工及協力廠部對環境保護電腦的設切,以其全體從業人員對地球環境保護電腦的認知,以其全體從率人員 對地球環境保護與自然中央地域即愈

本公司對供應商"即指 貴公司"希望配合如下:

- 1. 供應廣管制 · 原物時經應期間發及運用,以使用改資核定有環份之格之腐氣,循水及高棄物 處理機會。仍為解釋項目:並忽形能之合格教育科供應應 太公司優先等應採購 · 原物時供應商有污染環境之行為受測者不列為採購之對象 · 原物時供應定之能為,以場有環際標準及配合環境環絡之應品別為優先等應之 對象。

- 2. 还貨與運輸作業 運輸: 纵物時只應商對於運輸中之資益,應注度不可造成環境之污染影響 與以當之或數量 及稅益,至位外造成效效,"鐵輪山中如其股外率位而以於了經等。據稅 支稅益,至位外造成效效。"鐵輪山中如其股外率位而以於了經等。據稅 建始心帶衛和企、排除程度之次可能關策以及,由時產程以於上級外公益作
- 擴大。 邮貨:邮貨因使用之運輸工具及容器不同而採不同卸貨方式。 型攤:玻璃等桶裝容器:此類容器較易破損外溢,以人力或推高機卸貨時,須 小心搬運,並避免碰撞。

請於 月 日前簽名或蓋章傳回

表單編號: OR-84-23













Mildef Crete Global Technical Training

With the announcement of new products, we held the long-awaited global partner technical education training course at the end of March this year.

During the two-day training, the lecturers of each department used their respective expertise to do their best to impart relevant knowledge to the trainers from all over the world, including all new models such as RK12, DE13, DS13 and RS13. Introduction of hardware/software and structural design, as well as solid contents such as disassembly and repair. At the same time, we led everyone to visit the production process, introducing all kinds of equipment newly purchased by the MilDef Crete, so as to increase everyone's understanding of the Crete and cultivate everyone's attitude towards high quality.

The overall curriculum was affirmed by every participant, everyone also enjoyed and cherished the time to get along with each other. In addition to training, they are more active in finding time to discuss and exchange various topics. Everyone's dedication is worthy of admiration.











RoHS 2.0 Regulation Update

We plan to fully comply ECHA RoHS regulation (Directive 2011/65/EU & EU 2015/863) before 2019 / 7 / 22.



RoHS 2.0 project team:

Team Members: Planning Department, Procurement Department, Industrial Safety Department

Work division

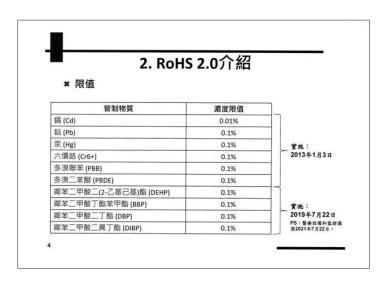
Planning Department: Checking RoHS 2.0 components material information provided by manufacturers/suppliers and update data in DOC system.

Procurement Department: Collect necessary information form manufacturers and suppliers then transfer to PM department for verification and documentation.

Industrial Safety Department: Set related procedure, schedual and standard, cowork with third party certification body for RoHS 2.0.

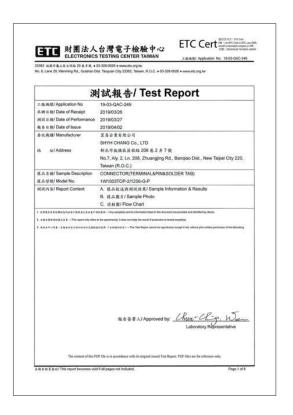
Preceding procedure

Setting milestone for each department and stage. Renew related instruction documents such as "Green product commitment," "Restricted material standard," "Part number coding principal".









Models: RK12, DE13, RK10, RF10, DR10, DS11, RS11, RW11

During the project, team members keep improving procedure and call of meeting to communication and tracking status. We also invite lecturer from certification body for consulting. Some of manufacture do not know how to fulfill the request so we have to guide them as well. Once there is controversy we would asked reports from third party to solve.

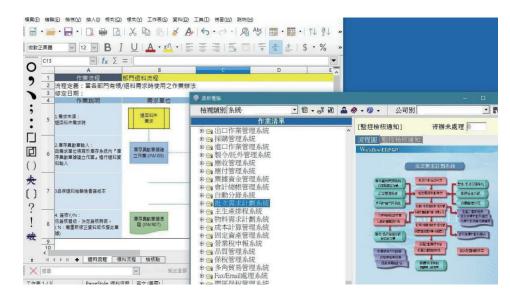
The RoHS 2.0 project team should process documents of over 10,000 parts in relative short time. It is our first time to run this kind of project and we finished it with incredible efficiency. The project also save a lot of third party testing cost for Mildef Crete and demonstrated a good Mildef Crete practice – We can always do better!

Mildef Crete always stick on our responsibility in environment protecting. We make lots of effort in design, production and management so our products not only comply varies regulations but always one step further.



ERP System Optimization

The information room is currently focused on the "Account-Inventory consistent" project, which aims to make our inventory information more immediate and accurate, so as to establish a better and faster basis for future LRP – Lot Resource Planning calculations.

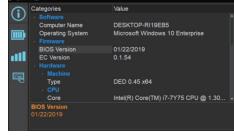


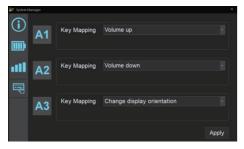
System Software Upgrade

MilDef Crete previously developed some applications, such as Device power manager, Auto Hotkey..., etc., and officially launched a new version of the *Application System Manager*. The new version of the application has the following characteristics:

- 1. User interface upgrade.
- Integrate existing applications into a single application, on all models.
- 3. New features.











Tainan Spring Staff Tour in 2019







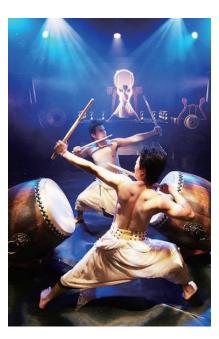
Nanyuan Garden Leisure Farm, enjoy the fun of bird watching and explore the ecological beauty of nature, a relaxing trip.

Chi Mei Food Happiness Factory DIY "Hands for happiness", personally make your own happy food.

Experience a 6-second landing at the Ten-drum Wenchuang Park, and enjoy the stunning performance of the Taiwanese "Ten Drums" on the five-story high-speed ultimate slide.











At dusk, take a stroll through the exhibition, take a look at the Japanese-style architecture and the "Essence of the Park," showcase the seasonal salt of the colorful beaches, and enjoy the delicious dinner of the Fucheng Restaurant after the An-ping Old Street Food Tour.

The "four-grass green tunnel" of the Taiwanese style of the Amazon forest, wearing the bamboo rafts to experience the beauty of the mangrove ecology, visit the Qigu's landmark "snow white salt mountain", taste the salt popsicle, take a picture at the North Gate Visitor Center painted walls and church.





















Annual Employee Health Check

MilDef Crete arrange all employees of the company to participate in health checkups every March. The content of our health checkup project is better than the requirements of Health and Safety Protection Regulations Health Checkup and Management for regular health checkups. Health management was implemented for all employees, and consultations with colleagues with high health check-ups and detailed examinations of follow-up were conducted. Relevant form information to be filled out during the health check will also be submitted to the employee for analysis after the collection to facilitate the implementation of the four major plans of the occupational safety in Crete.

108 Annual Health Check Job Description:



Health inspection announcement



Health and public expenses and self-pay items are sent to colleagues via e-mail



Process description on the day of health checkup



Health check-up and receipt of medical examination forms and township forms



Height, hearing test



Bone density check



Visual inspection



Blood pressure check



Pulmonary function test



Blood test



Ultrasonic inspection



ECG examination



Autonomic nerve examination



Lung X-ray



Conducting a physical examination by a doctor



Urine and physical examination form recycling office, complete the health inspection operation



MilDive Diving Club Set Sail



- 2019 April, Mil-Dive boat set its first sail.
- May, Tony and other members join the anniversary activity to clean beach at Keelung island.
- July, global partners came to Taiwan for business meeting. They are invited onboard to see the beauty of Taiwan coast.

















Photo by Seen



Company Image Upgrade

In order to enhance MilDef Crete's company image, we have discussed with the interior design company and revised the design many times, to fit the original counter and backboard design.

The overall effect enhanced our environmental image and conveyed the brand logo and visual impression of MilDef Crete to our customers.

It was completed in May and uplifted MilDef Crete a brand new look!









Office Equipment Upgrade

The air-conditioner used in Mildef Crete's factory has been in use for a long time and is unusable. Therefore, it was replaced in the first half of this year to be a fully enclosed air-conditioning system. The new air-conditioning uses the new environmentally friendly refrigerant R-410A, which consumes 7.4 kW of power and reduces the noise of the fully enclosed type. The ice-water main system will use the original two units in parallel. The new main system only start one unit, and the original one can be used as a backup. The noise is reduced after replacing the cold air, plus the ice water pipes are connected in parallel which saving 3% to 5% of electricity.



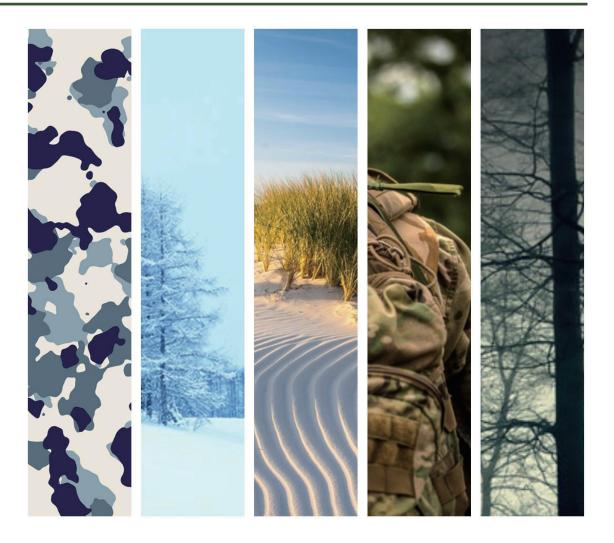












COMPANY INTRODUCTION

MilDef Crete was founded at 1990, we fulfill ISO 9001 and ISO14001. MilDef Crete focus on rugged computer market. We have complete product line including rugged laptop, tablet, mobile device and these products could be use in fields including military, public safety, public utility, on-site service, petroleum and natural gas, telecommunications, transportation, manufacturing, mobile commerce, etc.

Mildef Crete's products sold to the whole world by the brand MilDef. We have transnational team and several sites at Euro, North America and China. We provide our customer quicker and better service by co-work with our distributors and dealers. We keep focus on innovation and product development to provide best products for professional usage. We also have best R&D team for any customized demand. Our products pass various standards including MIL-STD-810 and International Protection Marking (IP54, IP65, IP67) and could fufill special request such like MIL-STD-461, ANSI or ATEX directive.

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