2020.07 FOURTH EDITION

Tilder **MILDEF CRETE**

Corporate Newsletter



Introduction

By Nelson Chou, Vice President

Hello everyone !

Welcome to this edition of newsletter. In the first half of the review period, the COVID-19 epidemic continued to spread. At present, there are more than 10 million confirmed cases in the world and half a million people have lost their lives. Every life left will affect the entire family. In order to protect the health and safety of employees, MilDef Crete family has also taken a series of epidemic prevention measures to ensure that employees can work in the safest environment. Think about the epidemic impact, I hope everyone will take good care of themselves and their families. Also wish that the development of vaccines can guickly find a breakthrough so that everyone's life and work can return to normal!

Returning to the company level, under the raging global epidemic, the entire company has not been affected

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Introduction

by the epidemic as much. In 20Q2 sales quantities vs same period last year has maintained a 12.8% growth in YoY sales. We have developed a plan to ensure that this year we will maintain growth and improve our customer satisfaction level. In addition, optimized the ERP system in the supply chain and increased strategic procurement. The production line has also been enhanced, and the objective of a more clear and transparent production plan is to increase production capacity and ensure on time delivery. The launch of the new model RW14, RB14 and DK13 in the first half of the year also gave a boost to MilDef Crete's products portfolio and increased annual sales.

In the first half of the year, we also integrated the panel bonding technology in the upstream LCD panel factory, hoping to overcome the bottleneck of upstream panel production. With the bottleneck of the EMI test process, in order to make the test data more stable and pass the strict certification standards, the factory has added a laser engraving machine-introducing countermeasures to stabilize the value. For example, the model RK12 has a very good yield improvement in EMI production capacity vs previous year, and its performance is obvious. Quality improvement is the most important thing. In addition to equipment and process optimization, our senior engineers have made guidance and improvements on processes and operations. The goal is to control the DOA index within 3% this year. This is a huge internal challenge but we at MilDef Crete are confident to achieve the goal!

Although there are many uncertainties in the international situation, our continuous investment in new markets, market research, human resources investment, equipment investment, and R&D new product development are all in progress. The core value of the system business unit lies in our ability to provide customized products in response to customer needs. Many products on the market cannot meet the application requirements of special industries. MilDef Crete can provide customers with complete product solutions. A globalized customer system is also the strategic goal of MilDef Crete, and the challenge of continuously expanding into new areas is also the room for future growth.

When preparing this publication, the epidemic is still fermenting in Europe and the United States, and mankind has not yet fully defeated COVID-19. I hope that in the near future, people around the world can work together to overcome the epidemic and restore economic and life order together. MilDef Crete will work with our global partners to overcome difficulties and create great results in 2020 and beyond. Let's work together!



NEW Product Launch DK13

Q3 2020 Crete released a new product — Rugged Tablet Computer DK13. The performance and durability of it pack a greater punch than those of the previous generations with several core components upgraded.

The processor of DK13 is upgraded from the 3rd to the 7th Generation – Intel® Core™ i7-7600U, allowing users to experience Max. Turbo Frequency 3.9 GHz as well as 4 MB Intel® Smart Cache, and, additionally, making the device more energy-efficient under Idle mode. With Intel® HD Graphics 620, the graphics processing ability is much enhanced, and users are guaranteed with a superior quality of the picture. Equipped with a 128 GB 2.5" SATA III SSD and a 16 GB DDR4, DK13 becomes more power saving, has higher transmission efficiency, and is smoother and faster during operation.



DK13 is configured with two sets of USB 3.1 Type-A, which provide users with more choices on applications. Magnesium chassis and Gorilla glass make DK13 MIL-STD-810H certified, meaning that users are able to use the device in more rugged regions. There are still a variety of options including Wi-Fi, Bluetooth, GPS, TPM, Invisible Mode On/Off, and G.A. for customers to choose from. Please do not hesitate to contact our Sales Team for further information.





	DK10	DK13
Platform	Intel® Huron River	Intel® Kaby Lake U
OS	Win7, Win8	Win10
Processor	Intel® Core™ i7-2610UE 1.5 GHz, up to 2.4 GHz 4MB Intel® Smart Cache	Intel® Core™ i7-7600U 2.8 GHz, up to 3.9 GHz 4MB Intel® Smart Cache
Chipset	Intel® Cougar Point QM67	N/A
Graphics	Intel® HD Graphics 3000	Intel® HD Graphics 620
Memory	DDR3 1333 SO-DIMM x 1 Up to 8 GB	DDR4 2133 SO-DIMM x 1 Up to 16 GB
Display	12.1" XGA (1024 x 768) LCD Single Touch Resistive Type	12.1" XGA (1024 x 768) LCD Single Touch Resistive Type with Gorilla Optional Invisible mode on/off
Storage	2.5" SATA II HDD	2.5" SATA III SSD
WLAN / Bluetooth	Intel® Centrino Advanced-N 6235 802.11 a/b/g/n, Dual band BT: 4.0 (downward compatible)	Intel® Dual Band Wireless-AC 9260 802.11 a/b/g/n/ac BT: 5.0 (downward compatible)
GPS	Ublox LEA-6H	Ublox Neo-M8N
BVA/ Surge Protector Module	Ublox LEA-6H	Ublox Neo-M8N
TPM Module	TPM 1.2	ТРМ2.0
Battery Run Time	10.8V/8700mAh Li-Ion Battery 517 mins	10.8V/8700mAh Li-Ion Battery 675 mins
Burn-In Core Temperature	90°C	66.5°C
Performance (3D_ MARK06)	3466	9825





Text: Peter Müller Pictures: © Bundeswehr / Marco Dorow

New digital command and control system presented

With the new combat command and control system of the land forces, the troops receive a digital tool for precise command of military operations. In Frankenberg, Saxony, the group now presented how the system works and how it is currently being installed in the vehicles. Together with the armed forces base and the command cyber and information room (CIR), the army in Frankenberg recently presented its new digital command and control system for land forces. The Battle Management System (BMS) will network the combat participants and the command posts with each other and thus generate a precise, current situation picture at a glance for every user. Management decisions can be made faster, easier and more precisely thanks to the new intuitive system. Panzergrenadierbrigade 37 "Free State of Saxony" is the first brigade of the Bundeswehr to be equipped with the new technology. In three years, it is to take over the leadership of VJTF, NATO's Rapid Response Force. Until then, screens, servers, routers and other items must be installed in all vehicles, the fresh software installed and the personnel trained in them.







Multinational compatibility

The BMS is based on the proven SitaWare software family, which other NATO member states already use. The common, field-proven technology should massively improve the interaction with the international partners. The armed forces mutually benefit from joint reconnaissance results and situation reports, which are clearly and uniformly displayed on the digital devices in the form of military symbols. This gives the management personnel - from the vehicle commanders of a main battle tank to the commanders on the command staff - a clearly detailed and quickly accessible picture of the situation. "Our international commitments make it clear that Germany, in its role as a leaning partner in the multinational environment, must be capable of being connected. It's about creating leadership in a multinational context. The battlefield is also developing increasingly dynamically, processes are becoming faster. These are the challenges we are facing with the Battle Management System," said Army Inspector General Lieutenant Alfons Mais at the joint introductory event on May 26 in Frankenberg.

This is how procurement works

In order to find the right system for the land forces in advance, a separate test and experimental association was set up at the Munster location, which installed the required systems in the vehicles. Various manufacturers had made their products available for this, in the case of the BMS a software solution. The team then put the systems through their paces, using tactical criteria, using a standardized and justifiable procedure. The user experience, i.e. how the soldiers ultimately deal with the product, was the focus of the scientific test procedures. After the tests, the group made their recommendation for a software solution. However, the Federal Office for Equipment, Information Technology and Use of the Bundeswehr in Koblenz is responsible for the procurement itself. The soldiers benefit from the close cooperation, because after all they will have to work with the material in the future and be able to rely on the quality and function of their equipment.





First experiences in the battalions

The installation and use of the new system will significantly improve the leadership of the VJTF Brigade, which is divided into seven battalions with a total of almost 5,000 soldiers. In the following years, the brigade will mainly prepare for its mission as a NATO Rapid Response Force. In addition to the brigade from Frankenberg, other forces from other areas of the Bundeswehr are also contributing to the VJTF 2023, which will also be equipped with the new technology by then. For example, the ABC Defense Battalion 750 from Bruchsal in Baden-Württemberg has already gained initial experience in installing the system and has been able to show in recent weeks that the troops themselves have been able to convert the vehicles. The effort varies depending on the vehicle model. "On average, converting a vehicle takes two hours and is also possible by non-specialized personnel under technical supervision," explains project officer Lieutenant Colonel Bodo Bock from the armed forces base, who, together with his comrades, is driving the project forward with great commitment. The deliberately simple technology should relieve the troops during the conversion process.

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Fiber Laser Metal Laser Engraving

By Alex

Responding to the gradually increasing product quantity and pursuing a more stable production process, Crete purchased a 2.5D Fiber Laser Metal Laser Engraving System in Q2 2020.



Finished anodized product of fiber laser engraving



Fiber-laser engraving in process



2.5D Fiber Laser Metal Laser Engraving System

Owing to the property— metal has good band absorption for fiber laser, the 2.5D Fiber Laser Metal Laser Engraving System is applied to remove paints, coatings, and hard anodized engravings. For the reason that high flatness of fiber laser engraving offers great help to the conductivity stability of cases, and that in production fiber lasers will not be easily affected by temperatures and humidity, and that its tolerance toward the environment is relatively high, the 2.5D Fiber Laser Metal Laser Engraving System was adopted to improve the stability of MIL-STD-461 for Crete's devices.



Comparison between fiber-lasered areas on aluminum-magnesium cases





Comparison between fiber-lasered areas on aluminum-magnesium cases

The laser head of 2.5D Fiber Laser Metal Laser Engraving System is industrial grade categorized as Class IV (the most dangerous level), whose fiber laser wavelength is 1064nm belonging to infrared light, one of the invisible lights, so there will be a red light to guide to the location where the laser will be outputted before processing. This system shall only be operated by those who have completed training courses, and operators must wear special protective goggles and make sure not to stare at lasers during the whole operation.

With the characteristics of exceptional beam quality, excellent performance, high production efficiency, and easy integration with mechanical engineering, the Fiber Laser Metal Laser Engraving System without a doubt shall be the best choice for enhancing the stability of MIL-STD-461 for MilDef Crete's products.



A warning sign of laser radiation



Laser safety goggles





Production Station site tracking system

By Howard

In response to the diversification of product models and the demand for machine control for small orders, as well as the company's layout of future product process optimization, the planning and construction of a "Production site tracking system" was started in the fourth quarter of 2019. The system produces the process card after the production line completes the finished product, and at the same time, the machine serial number bar code on the process card is used to enter the bar code of each station to display the station position of each machine. The entire system is divided into 9 stations according to the group, from assembly to testing, Clean room, post-processing, EMI, FQC, test, packaging, boxing and maintenance. Since the "Production site tracking system" has established in production, production management and other units to know the progress of the current order machine and the station staying, it is time-saving, convenient and timely compared to the previous manual search for machines from one station to another station.





Entering the machine serial number shows the station that the machine passes through, and the current machine station is the "test station."

登入者:劉志宏[6] 製程管理 測試自動化 機器管理	搜尋結果			
條碼輸入	訂單-製造通知單 報告-文件 機器	/備品列表		
请確認游標已置於下方輸入框中	MO No. 310-000276 PO No.			
■ 條碼搜尋		Seria	al Number list	
輸入條碼:	T1280014 [別試站]	T1280015 [測試站]	T1280016 [測試站]	T1280017 [測試站]
T1280015	T1280018 [別試站]	T1280019 [測試站]	T1280020 [測試站]	T1280021 [測試站]
1	0001 T1280022 [別試站]	T1280023 [測試站]	T1280024 [後加工站]	T1280025 [測試站]
	T1280026 [組裝站]	T1280027 [測試站]	T1280028 [測試站]	T1280029 [測試站]
送出	T1280030 [組裝站]	T1280031 [測試站]	T1280032 [測試站]	T1280033 [測試站]
A統管理 回選單 使用者登出 管理者登入 Administrator Login			Let Particul Product Product Product	

From the order, you can check the current station position of each machine in this order.



Upgrade BGA rework system

By Kevin Chen

Nowadays, computer platforms are all geared towards lead-free processes, especially for the Intel i7 series. The original BGA rework system cannot overcome PCB distortion and discoloration and the success rate. Therefore, the 2018 proposal is to replace the BGA rework system. In 2019, it was decided to purchase the expert10.6 system of the German MARTIN company MaFi638 through a Taiwan agency after a number of product trials. It will be delivered in March, 2020, and education and training will be carried out in April. The machine can be used in many ways. It has also been tested to establish various BGA parameters.





Introduction of the training of engineering personnel by agents.

Actual operation status.





COVID-19 in-plant measures

By Andy Shih

In response to the COVID-19, many measures have been taken in the factory.

1. Ask a professional physician to introduce the COVID-19 and related symptoms, related transmission routes, hygiene habits and protective measures that should be noted. The class situation and content are as follows.



2. Draw up a COVID-19 plan book and poster to promote epidemic prevention operations.



3. The company implements remote work planning according to the plan, prepares the necessary computers and related operating settings; and manages personnel to avoid unnecessary interviews. Visitors need to take their body temperature and fill in related contact history. Video or telephone communication is often used between departments. Documents and products are not directly contacted by personnel to sign, receive and release operations, so a buffer temporary storage area is set. As shown.





4. Use the access control system for personnel flow to reduce excessive personnel flow and contact between departments; also reduce the entry of foreign delivery or meal personnel into the factory area, and set up temporary storage areas for items; when necessary (such as when items are heavy), the contractor should wear goggles and masks to guide delivery personnel. As shown below.



5. When colleagues go to work in the morning, they must measure their forehead temperature and conduct independent health management inspections. If the temperature exceeds 37.5 degrees, they are not allowed to work in the factory; and the employee is asked to seek medical treatment to determine if it is not new coronary pneumonia before entering the factory. However, the "self-health management" must be implemented during the work, and a mask must be worn to work throughout the process. All colleagues must take the forehead temperature and record it on the form for future reference.



6. The company controls personnel, sets up temporary storage areas for products and documents; we also implement disinfection operations for the environment, and set up disinfection blankets at elevator entrances and stairways with frequent entrances and exits to effectively disinfect and manage the viruses that follow the soles. The factory area also arranges regular outsourcing disinfection operations; meeting rooms and meeting areas must be disinfected immediately after use.



To sum up:

The company pays great attention and attention to the epidemic, and has formulated a plan; to let colleagues know about the virus, it is necessary to add related equipment and set up buffers for temporary storage of documents and articles in the protective part, reducing unnecessary interaction of personnel, and environmental protection. Doing necessary disinfection, all of this is to prevent the epidemic, and I believe that the COVID-19 can be kept out of the company. I also hope that with the joint efforts of my colleagues, we can survive the severe epidemic safely.



CPR and AED

By Vincent

AED CENT

According to statistics made by the Ministry of Health and Welfare in 2018, heart disease ranked second among the top ten causes of death among Taiwan. As early as in 2012, the government had specified that eight types of public places require AEDs, so this device can be seen in all major public places. It can save the lives of deaths due to heart disease during the prime time. However, heart disease is often unpredictable before it occurs, and it takes a short time to fall, which is one of the causes of sudden death. If there is no timely CPR after the heartbeat stops, the patient's survival rate drops by 7-10% per minute.

	去年國人十大死	因排	Х
排名	死亡原因	人數	佔死亡總 數百分比
1	癌症	4萬1046	28.4%
2	心臟疾病(不含高血壓)	1萬5675	10.8%
3	腦血管疾病	1萬134	7.0%
4	肺炎	8909	6.2%
5	糖尿病	8211	5.7%
6	事故傷害	6669	4.6%
7	慢性下呼吸道疾病	5197	3.6%
8	慢性肝病及肝硬化	4912	3.4%
9	高血壓	4174	2.9%
10	腎炎、腎病徵候群及腎病變	4105	2.8%



Research reports from the United States and Japan further pointed out the importance of electric shock defibrillation. If charity rescuers can implement CPR at the first time and use AED, compared with only implementing CPR, the rate of survival and discharge of patients who witness sudden cardiac arrest in public places outside the hospital can be increased to about twice.

Our company installed AED equipment at a specific location in the factory in February 109 to prepare for emergencies and protect the lives of employees.

At the same construction time, AED+CPR training courses were opened to train employees how to operate the equipment correctly, so that employees can help each other and save lives when a situation occurs.





Company Employee trip

By The 21st Welfare Committee

The long-awaited travel for foreign employees in 2020 is exactly the early stage of the outbreak of the COVID-19. The originally scheduled five-day tour of Hokuriku, Japan (2020/2/22-2/26) with a total of 50 participants, because the global epidemic is still unclear, can a group be sent? When will Japan be listed as a red alert tourist country? All are still unknown. The Welfare Committee members responsible for undertaking employee tours are very nervous to keep in close contact with the travel agency. From the company's standpoint, they still respect the wishes of willing participants, and the number of participants in the event plummeted to 16. On the day that the members arrived in Japan, Japan was listed as a Red Alert tourist country!







Even so, the five-day tour itinerary is equally exciting: On the first day, we go to the Ena Gorge Observatory to see the National Natural Reserve-Umbrella Rock. Then go to the Tsumago and horse cages that have preserved the streets of the inn in the Edo period. Take a leisurely stroll along the stone slope, strolling row upon row of traditional markets such as large and small travel cages (inns) without glass and paint, tea houses, souvenir shops, etc. There is not a single telephone pole in the whole area, and there are not even vending machines that are very common in Japan, showing the quiet Edo period. Quiet mountain hot springs, full of mountain style, romantically enjoy the wild open-air hot springs under the sky full of stars, and eat ice cream in the snow-covered mountains, playing and enjoying the scenery happily. Gassho Village in Shirakawa Township is the focus of this itinerary. It is located in a snowy area, coupled with the mountainous terrain, which forms a unique regional customs and culture. The gassho-shaped thatched house is the most famous. We was expecting that the thatched cottage covered with mist and white snow was against the blue sky and white clouds, but unfortunately the weather was bad that day, but it did not affect the travel mood. On the day when the snow monkeys took a bath in the hot spring, the weather was so good, and because the weather was so good that the temperature was too high, the monkeys in Jigokudani Wild Monkey Hot Spring Park did not go to the hot spring...What a pity, there is no eye fortune!



After the 16 people on this trip returned to Taiwan safely, they cooperated with the government's anti-epidemic measures and carried out independent management for 14 days, and everything was well. Jokingly called the 16 Warriors, ha ha.

Employee Welfare Committee's new policy for self-organized activities

By The 21st Welfare Committee

hilder

The 21st Employee Welfare Committee of MilDef Crete encourages all kinds of activity enthusiasts in the company to spontaneously organize group activities, strengthen the internal centripetal force of the company, and improve the physical and mental health of employees. Enthusiastic employees can be more motivated to organize various healthy groups. Activities such as: parent-child activities, road running, cycling, mountain hiking and various ball sports... and other dynamic activities, so that everyone can have a richer choice outside of domestic and foreign travel, and increase leisure and stress relief channels. The Welfare Committee is in accordance with Article 26, Paragraph 7 of the "Employee Welfare Committee Management Measures": "The employee welfare committee subsidizes travel expenses based on the group and cannot be subsidized individually. In order to avoid affecting the normal business operation of the company, the For departments (factories) or employees who organize groups by themselves, the minimum number of groups and subsidies can be measured by the actual needs and funding status of all employees. Each session of the committee is approved by two-thirds of the members present before it can be announced and implemented." "Details of self-organized activities," colleagues who are interested in understanding, please consult the 22nd Employee Welfare Committee!



申請者	I	號	申請日期	年 月	日
一、活動企	劃內容:				
1. 名	稱:				
2. 時	間: 年	月 日(1	哲訂)		
3. 地	點:				
4. 行程(11	ī远):				
5. 預	算:新台幣	元・			
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95	營 □其它:]自行車 □路跑 □其	它:	
7. 參加人業	收: 位・名單請詳	列如下:			
(1)	(2)	(3)	(4)	(5)	
(6)	(7)	(8)	(9)	(10)	
(11)	(12)	(13)	(14)	(15)	
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二、核銷絕	周日期:年月_ 費收據/發票 (請浮貼放 想(50~100 字): 		並檢附活動相關照片	電子檔 2-3 張。	
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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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